



*Historical Amiga CDTV magazine
advertisements and reviews collection.*

Commodore Adverts



BETTER GRAPHICS. BETTER SOUND. BETTER SOFTWARE. BETTER GET ONE.



Better take note. One CD inserted into the new Amiga CDTV stores the equivalent of up to 700 floppy discs. That's 550 megabytes of memory or 250,000 A4 pages of text.

CDTV also gives you access to over 3,000 Amiga titles and over 100 CDTV discs, covering everything from arcade

From **Commodore** quality games to education. And CDTV can be used as a regular audio CD player when connected to your stereo. The Amiga

CDTV Computer Pack, complete with qwerty keyboard, disc drive, mouse and infra red remote control can be yours for only £499.99 including our free Public Domain Collection disc. The Amiga CDTV Player Pack comes in even lower at only £399.99. All of which proves one thing.

When it comes to the ultimate in home entertainment, you won't find anything better than the Amiga CDTV.

**AMIGA
CDTV**

THE WORLD'S MOST INTERACTIVE HOME ENTERTAINMENT SYSTEM

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AMIGA CDTV. £200 OFF IF YOU PAY WITH PLASTIC.



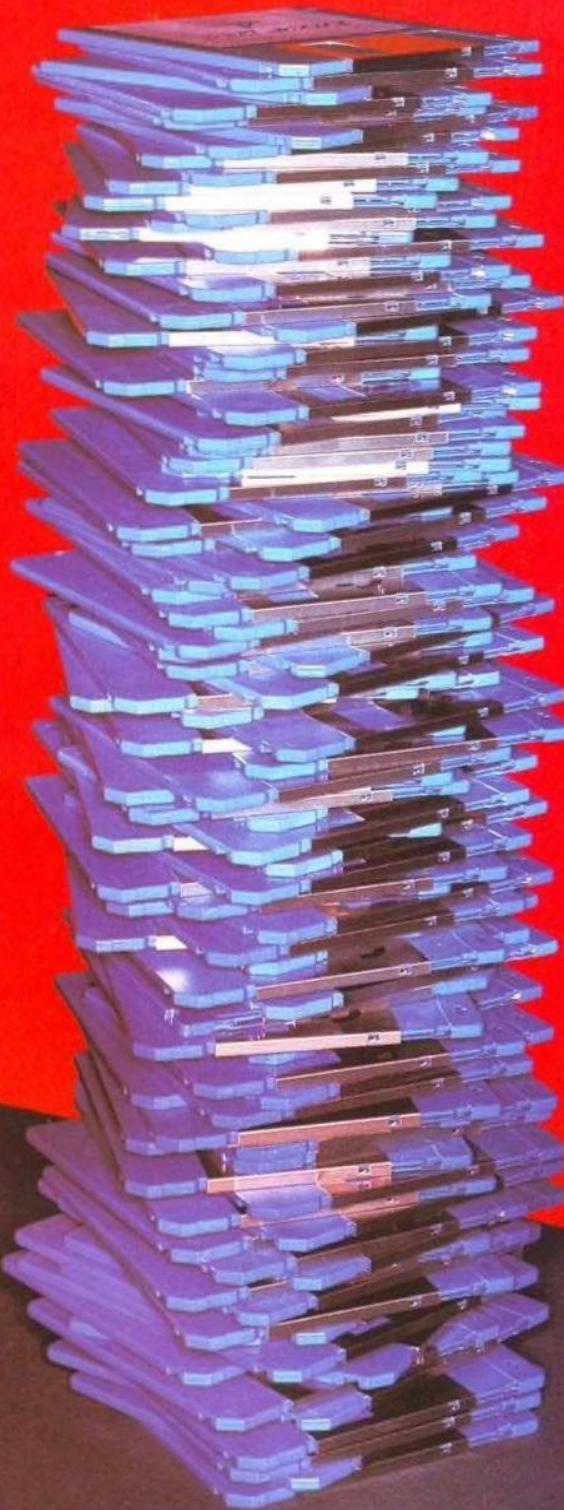
The plastic in question being your trusty Amiga 500, of course. Because if you take it along to your local stockist

and trade it in, we'll exchange it for a new generation Amiga CDTV multi-media computer pack for only £399.99.* That's £200 less than the normal retail price. And remember, that includes an Amiga CDTV player with keyboard, mouse, floppy disc drive and a 12 month warranty - the whole shooting match. This fantastic offer to our Amiga customers closes at the end of September. So hurry, as they say, while stocks last. And don't forget the plastic.



**AMIGA
CDTV**

*TRADE-IN MACHINES MUST BE COMPLETE AND IN WORKING ORDER. OFFER ENDS 30TH SEPTEMBER 1992. AVAILABLE AT SELECTED HIGH STREET STORES INCLUDING DIXONS AND SPECIALIST INDEPENDENTS. FOR DETAILS OF YOUR LOCAL STOCKISTS CALL FREE ON 0800 686868.



**THE NEW
AMIGA CD DRIVE.
FOR MORE INFORMATION
BUY ONE.**



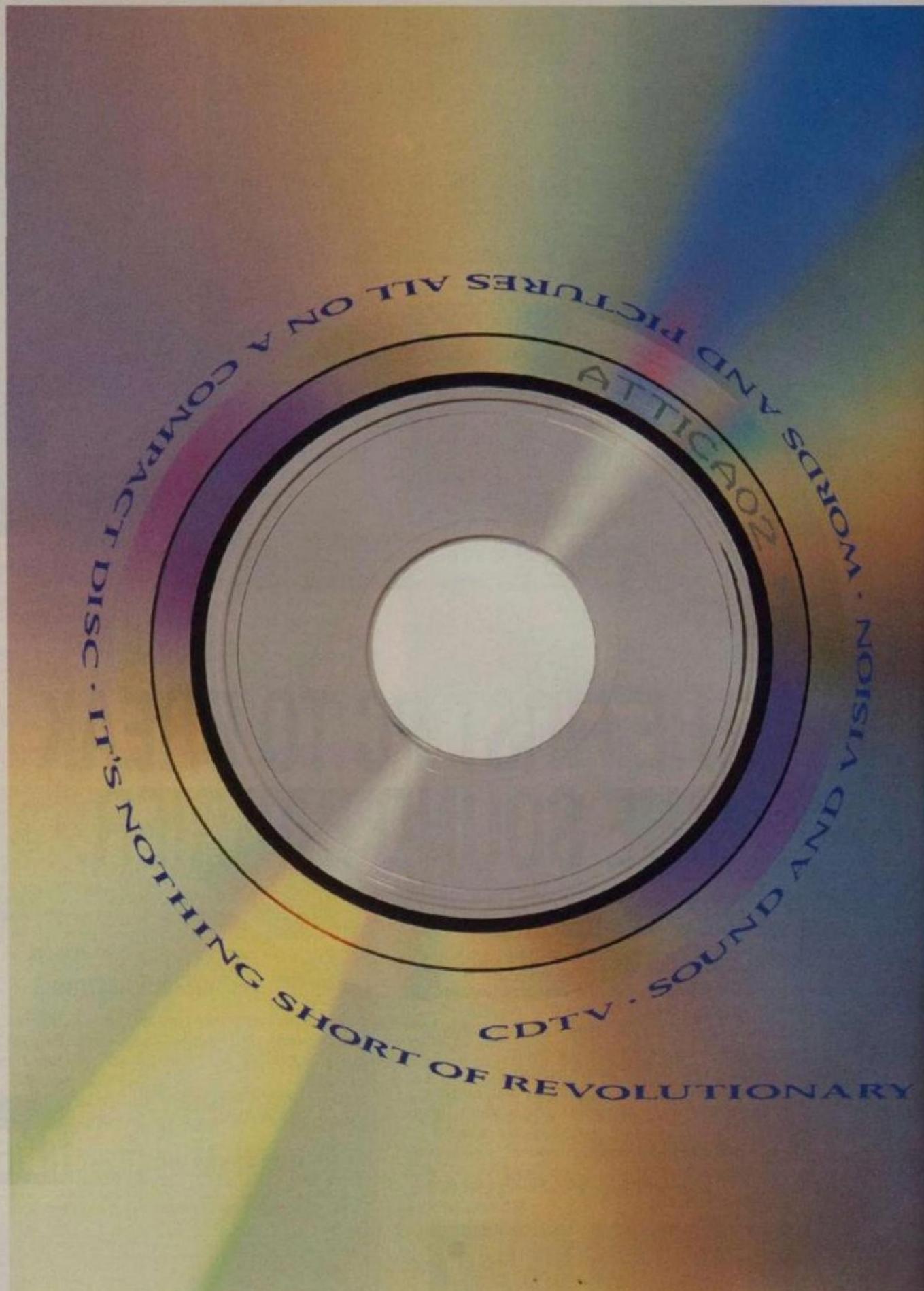
The Amiga 570 CD Drive has arrived. A major leap forward for you. But a slight problem for our photographer. Because just one compact disc inserted into this ingenious machine can store the equivalent of up to 700 floppy discs – far too many to fit into a single photograph. That's an astonishing 550 Megabytes of memory, or 250,000 A4 pages of text. Enough to instantly transform your Amiga 500 Plus into an interactive multi-media player with the capabilities of CDTV.

In short, a real power-house. And one fully equipped to take advantage of over 100 CD titles already available covering everything from education to entertainment. The Amiga 570 CD Drive can also be used as a regular audio CD player. So its retail price of only £349.99, including our free Public Domain Collection disc, should come as music to your cheque book. We could go on and on about the Amiga 570. But how much more information could you possibly want?

From £ Commodore



STOP PRESS: THE NEW AMIGA 570 CD DRIVE IS FULLY COMPATIBLE WITH THE AMIGA 500 PLUS. HOWEVER, IF YOU HAVE ANY OTHER TYPE OF AMIGA 500 PLEASE CONTACT YOUR DEALER BEFORE PURCHASING. ALTERNATIVELY WHY NOT EXCHANGE IT FOR A CDTV MULTI-MEDIA PACK FOR ONLY £399.99. THE A570 IS AVAILABLE FROM SELECTED HIGH STREET STORES, INCLUDING DIXONS, SPECIALIST INDEPENDENTS AND MAJOR MAIL ORDER COMPANIES INCLUDING GREAT UNIVERSAL STORES.



WORDS AND PICTURES ALL ON A COMPACT DISC. IT'S NOTHING SHORT OF REVOLUTIONARY

ATTICAQZ

CDTV

· SOUND AND VISION



Imagine a compact disc that not only gives great quality sound. It also plays books, photographs, graphics and the written word. CDTV is like nothing you've experienced before. And it's everything you could want for entertainment, education and excitement. Picture, for instance, a child asking the question, "Who was Martin Luther King?" Easy. You just turn on the TV, put in a political history CD and not only can you read everything about King's life, you'll also see his face, hear the crowds and feel the emotion in his voice as he tells you his dream. But that's only one way of looking at it.

With CDTV in your sitting room, suddenly your TV isn't just for watching. It's a mine of information. A book that talks back. The world's best teacher. A CD quality home karaoke. Or a most talented games player. And if you're happy changing channels on your TV remote, you could work CDTV in seconds. Just select your choice of title from the 150 available and you're away.

Take music. Of course, you can play your audio CDs. But by pressing the buttons on your remote, you

could also play drums with Hendrix. No experience required. Or remix any of your CDs to create your own versions. If your tastes are more classical, listen to Beethoven's music while you see a picture of the composer and read about his life's works. That's multimedia in its truest sense. "Switch off the TV while you're doing your homework!"

That phrase could soon all but disappear. Because what better way to swot up on Shakespeare than by acting in a play and speaking the part of, say, Romeo with CDTV as your prompt.

For sheer entertainment, there's nothing to touch CDTV. With Trivial Pursuits, you're not just answering questions on a card. You can ask, for example, "Who is the person singing this song?"

Whatever your interest, whatever your age, CDTV is a totally new way of looking at every subject under the sun. For only £599.99 including VAT, the price of a good CD player, you are combining fantastic CD sound with the familiarity of television. The word's going round that no home should be without CDTV.

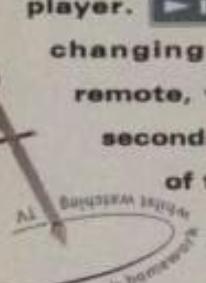
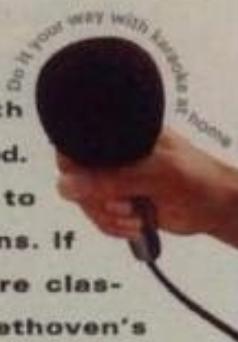


See CDTV at selected high street retailers, call 0628 779678 or post this coupon to CDTV Information Desk, FREEPOST 1359, Maidenhead, Berkshire SL6 7YA. Pack includes CDTV machine, infra red remote control, welcome disc and two free CDTV titles.

Title: Mr Mrs Miss Ms Other _____ Surname _____ Initials _____

Address _____ Postcode _____ CV9 1

CDTV is Art, Leisure, Games, Music, Education, Politics, Sport, Languages, Atlases, Talking Books, Colouring Books, Health, Encyclopaedias, Gardening, Cookery, Fairy Tales, Simulations, Role Playing, Science, Karaoke, Entertainment.





SOUND AND VISION



WORDS AND PICTURES ALL ON
COMPACT DISC. PICTURE THIS



A WHOLE WORDS WORTH



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GET INTO THE GROOVE OR



INTO A HOLE DRIVE OFF TO



INDIA COME ON INDIANA



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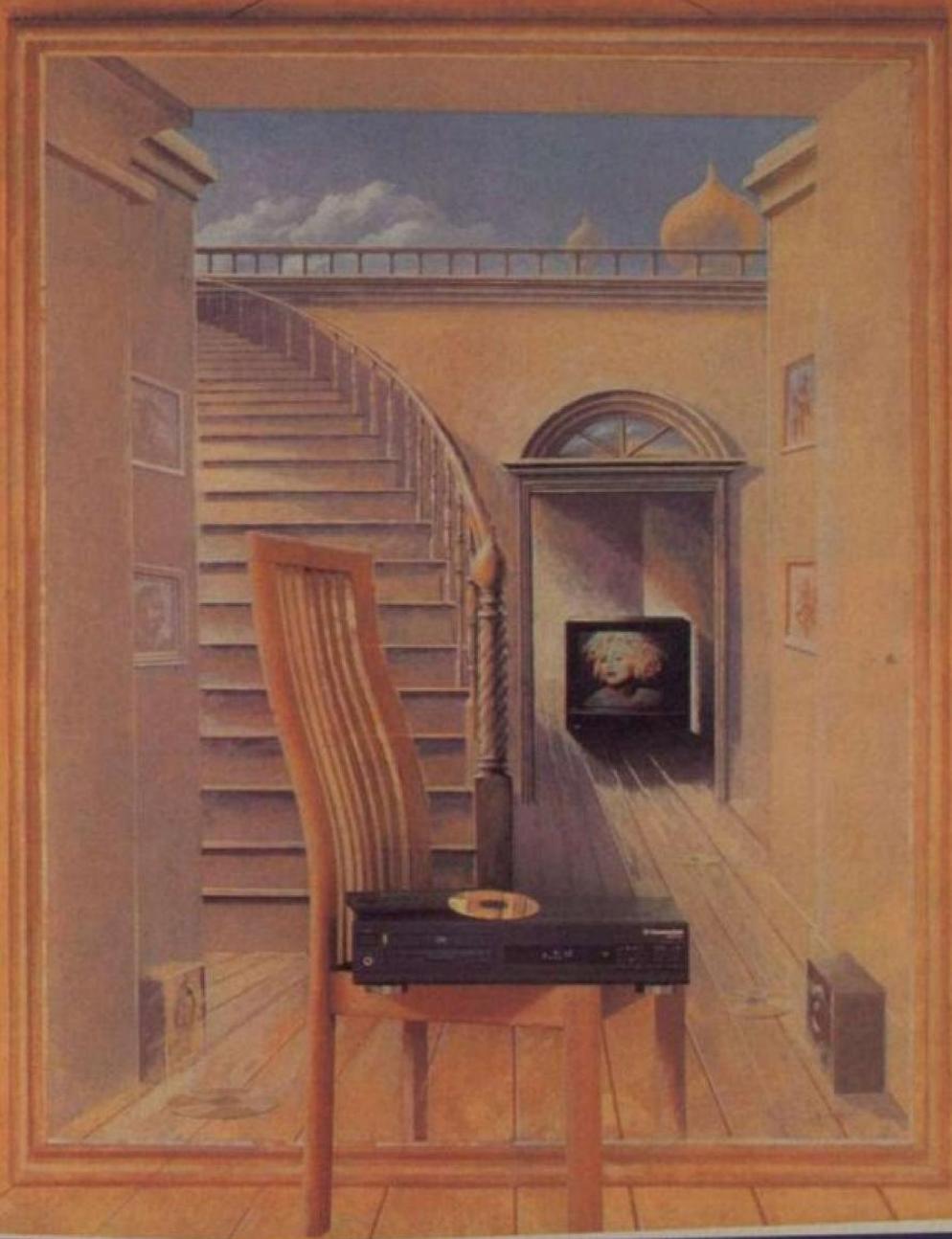


DEEPER ER, WHAT'S UP DOC?



THAT'S ALL FOLKS!

ESCAPE



WELL, THAT'S ONE WAY OF LOOKING AT IT.

It's here. Commodore Dynamic Total Vision. Everything you could ever want for excitement, entertainment and education for only £599.99 including VAT. Price excludes TV monitor. Call 0628 779678, see CDTV at all major retailers or fill in the coupon for the full picture and send to CDTV Information Desk, FREEPOST 1359, Maidenhead, Berkshire SL6 7YA.

Title: Mr Mrs Ms Miss Other _____ Surname _____ Initials _____

Address _____ Postcode _____

Commodore CDTV

CVG 1

THERE'S A LITTLE BIT OF COMMODORE IN ALL OF US
Pack contains CDTV machine, infra red remote control and ready to play CDTV discs.

YOU WON'T RECOGNIZE THE FAMOUS COMPUTER IN THIS AD. OR THE VALUE.



You'd never know the amazing things this black box can do just by looking at it.

Not only does CDTV® play your audio CDs but it can bring words, music and pictures to life on your television. CDTV simply connects to your TV and stereo and through its ingenious marriage of computer, audio and video technologies lets you play with a new generation of interactive CDs.

CDTV is based on the Amiga® and if you buy the CDTV/P system before June 30th it comes with AmigaDos®, a keyboard, floppy drive, mouse, Grolier's Electronic Encyclopedia™, Lemmings™, Appetizer pack and a savings of up to \$848.00.*

Just pick up a CDTV Multimedia Player and you'll have a full 1Mb Amiga 500 with the potential to be a home video editing system, a home reference library, a children's learning tool, a music studio and a language learning lab. All within reach of your sofa.

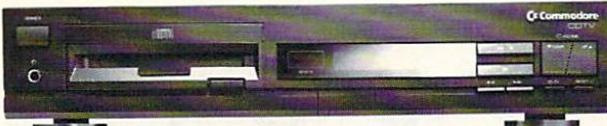
For the name of the closest authorized Amiga dealer or for your free CDTV Welcome Tour video tape call 1-800-66-AMIGA, in Canada, call 1-800-661-AMIGA.

Look into CDTV Multimedia. You'll be amazed at what you see.



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COMMODORE'S CDTV



PHILIP'S CD-I



CAN

CAN

be expanded into a full 1mb Amiga 500® computer, with a selection of over 2500 titles.

CAN

become a home video editing system.

CAN

be connected to a parallel printer for hard copy output.

CAN

utilize a modem and existing software and become a home communications center.

CAN

become a home music composition center through the built-in MIDI (in/out) interface.

CAN

utilize a 64k and 256k personal memory card.

CAN

offer your customers a 24-hour, 365 day toll-free "help" line for questions, plus a free pick-up/delivery replacement service for warranted repairs.

CAN

give free with purchase: The New Groliers Electronic Encyclopedia and a hot new game called Lemmings (\$449.00 value)

CANT



CDTV is the unparalleled choice in interactive multimedia players. As you can see, no other multimedia player is as expandable. Or as flexible. Or as saleable. Or offers as large a selection of titles. And with a time-proven Amiga 500 computer at its heart, it benefits from technology enjoyed by 3 million people worldwide. CDTV multimedia can make your customers happy today—and grow with them tomorrow.

1-800-66 AMIGA

Comparison based on CDTV model 1000 and CD-I model 910 as of 12/2/91.

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Publisher Adverts



DOUBLE CD PACK!

Collection for Amiga CDTV

Contains over 1700 disks from the 17 Bit Public Domain Library.

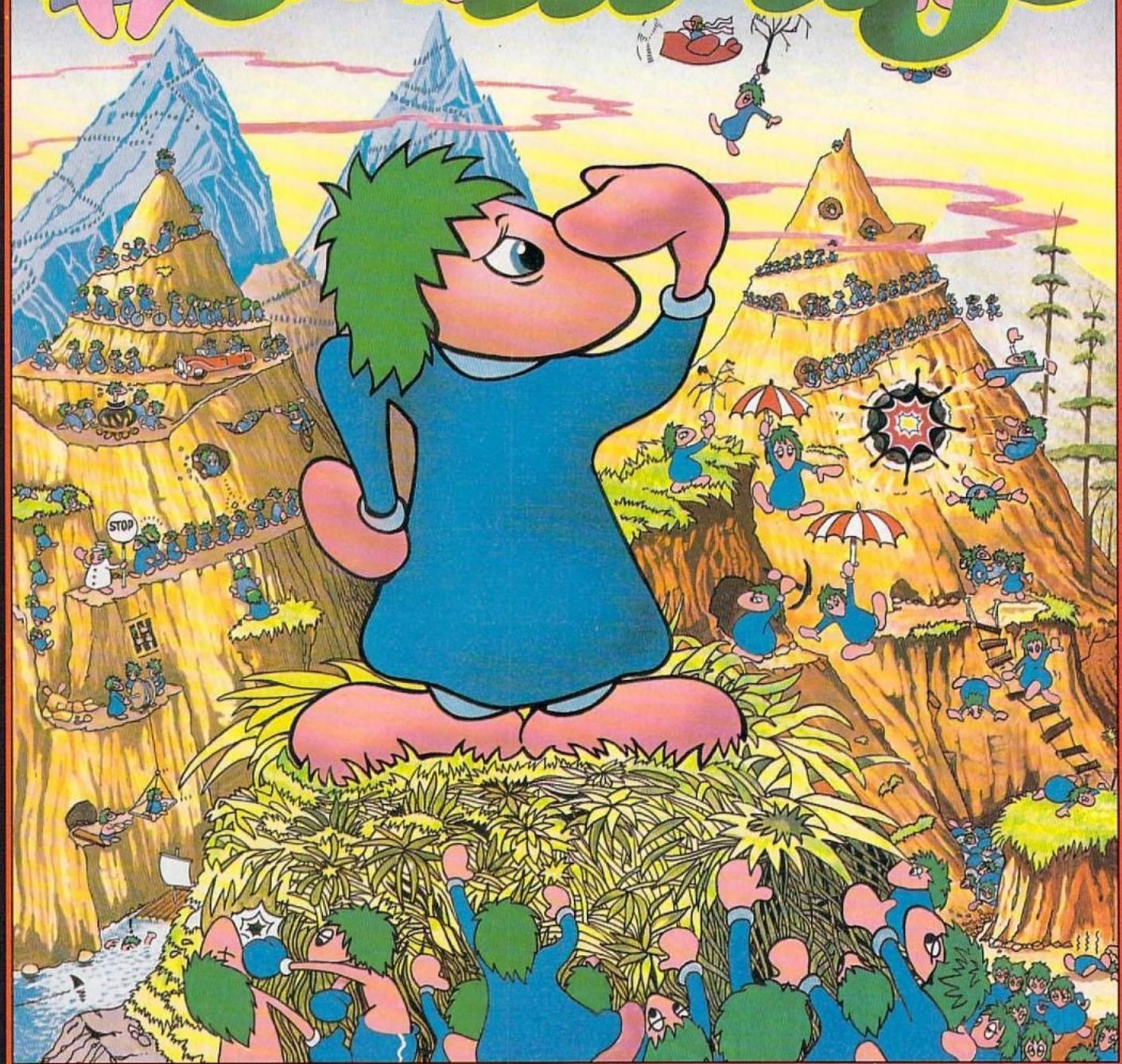
"The One" - 98%
their highest ever rating!

"...a real stormer...worth buying an A570 for"- Amiga Format
"there really is a superb variety of programs...snap this up before
17 Bit realise their mistake and up the price."- The One
"Double disc delight" - Just Amiga Monthly

Compiled by
Almathera

The 17 Bit Collection is available now at £39.95 from all usual outlets or direct
from Almathera and 17 Bit. Call and order your copy now either from
Almathera : (081) 683 6418 or 17 Bit : (0924) 366 982

Lemmings



Save the Lemmings-
and



Commodore Amiga,
Commodore CDTV,
Atari ST
PC Compatibles

PSYGNOSIS

PSYGNOSIS
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Brookline, MA 02146
Telephone: (617) 731-3553

Circle #101 on the Reader Service Card.

INSIGHT DINOSAURS

INSIGHT:DINOSAURS is the second title in the INSIGHT series, a lavishly produced title rich in multimedia. You can be assured INSIGHT:Dinosaurs will be visually stunning and technically correct as the title is being produced in association with the British Natural History Museum, one of the world's foremost centres of excellence in the field of paleontology. A unique title for the whole family, produced in a concise, easy to read style which allows it to be used for reference and browsing alike.

A comprehensive A-Z section gives in depth information on the best known dinosaurs from Allosaurus to Velociraptor.

Life of the Dinosaurs covers Anatomy, Attack And Defense, Herbivores, Carnivores, Climate, Pack Hunters, Lone Hunters, Herds, Scavengers, Descendants and much more.

World of the Dinosaurs covers Death Of The Dinosaurs, Shifting Continents, Family Tree, Fossil Hunters and Hunting and much more.

DINO SAW is a Chinese jigsaw with 25 different dinosaur puzzles

DINO PAINT is a simple to use children's colouring book with 25 pages for you to colour.

DINO QUIZ is a multimedia quiz for one or two players with questions on all aspects of Dinosaurs.

TEXT - Comprehensive text coverage

PHOTOS & ILLUSTRATIONS - Stunning photos and illustrations from the Natural History Museum and its comprehensive photo library.

GRAPHICS AND ANIMATIONS - Computer generated 2D and 3D animations bring to life the world of the Dinosaurs.

NARRATIONS - Hear the story of the Dinosaurs.

MOTION VIDEO - Video clips bring to life this lost world!

A comprehensive cross reference index and online glossary give you quick and easy access to the information you need.

PANDORA'S CD



PANDORA'S CD shows you just what can be achieved with multimedia and your Commodore CD system, an all original promotional disc containing something for everyone. Five Senses production, the Nuclear industry, number counting game, Milton Keynes guidebook, jukebox, clipart library, photo library, textures library, sound effects library and a sampler of INSIGHT:Technology. Sample the wonderful world of Optonica multimedia.

CD32

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£39.95 INC P&P

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PLEASE ALLOW 28 DAYS FOR DELIVERY - USUALLY WITHIN 48 HOURS

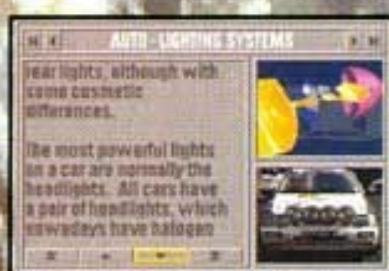
1 THE TERRACE, HIGH STREET, LUTTERWORTH, LEICS, UK, LE17 4BA.

INSIGHT TECHNOLOGY



INSIGHT:TECHNOLOGY, lavishly produced by Optonica and published by Commodore gives a fascinating look at modern day technology with pictures, animations, photos, video, narration, text, music and sound effects, over 260 topics in all, from the ball point pen to the space shuttle.

Produced in an easy to read style this concise and entertaining reference title for the whole family is a real eye opener!



We take the operation of modern technology for granted, now see how it works with computer generated graphics and animations showing exploded views and talk through sequences. Over 700 photographs show in detail the workings of technology in the fields of the Home, Military, Communications, Medical, Leisure and Space.



A comprehensive index of over two thousand words allows you to go quickly to any topic, or simply use INSIGHT:Technology to browse and learn.



CD32
CDTV and A%70 DRIVES
£33.95 inc P&P
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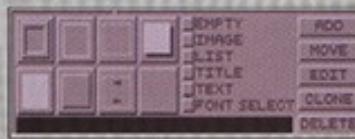
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INTERPLAY

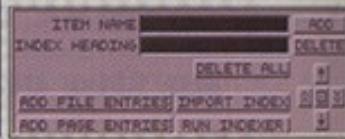
THE ULTIMATE CDTV-CD32 AUTHORING SYSTEM FOR THE AMIGA

JOIN THE AGE OF MULTIMEDIA - From the authors of the best in Commodore CD multimedia productions comes Interplay, a system which puts sophisticated multimedia production in the hands of the creators and producers, not programmers. Interplay has been designed with ease of use in mind, reducing the time and cost of title production to the minimum. Quick prototyping and WYSIWYG point and click operation make Interplay the ideal tool for commercial producers of CDTV and CD32 titles, of any size. Interplay has been in use, at Optonica, for nearly two years, undergoing refinement over this period and now incorporating CD32 (AGA) support it is ready for release. The commercial possibilities for Interplay are demonstrated by the fact that it was used to produce PANDORA'S CD, INSIGHT:TECHNOLOGY and INSIGHT:DINOSAURS, titles acknowledged as being among the best available for CDTV and CD32. Interplay is totally optimised for CD production, save £1000's on production costs on a single project.

PROFESSIONAL CD32 and CDTV TITLE DEVELOPMENT SYSTEM

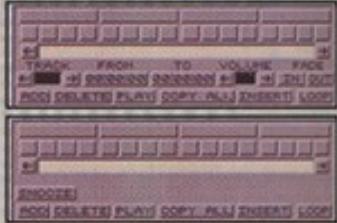
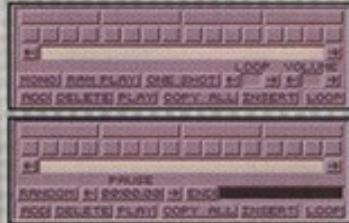
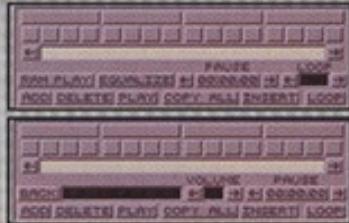
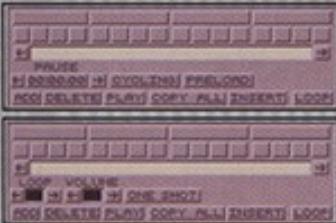


PROFESSIONAL CD32 and CDTV TITLE DEVELOPMENT SYSTEM



FEATURES INCLUDE

'Point & Click', no programming knowledge required - Supports all Amiga graphics modes in PAL, NTSC, ECS & AGA, Amiga animations (ram loaded or disc spooled) - CCDA audio - 8SVX IFF sound samples (ram loaded or disc spooled) - SMUS and Soundtracker music files - ASCII text files - VAXL motion video - External program launches - Auto PAL/NTSC & ECS/AGA file seek and display for international titles - Text cross reference system - Multi team project imports - Use built in box/button styles or design your own - Sophisticated user selected list authoring - Built in page to page transitions - On line help system - Dynamic colour page remapping - Spool images AND 8 bit audio from CD simultaneously - Works with CDTV and CD32 controllers - Fully multitasking - runs under OS1.3, 2.0 & 3.0 - Supplied with runtime player, no hidden costs.



INSIGHT:TECHNOLOGY



INSIGHT:TECHNOLOGY, lavishly produced by Optonica and published by Commodore gives a fascinating look at modern day technology with pictures, animations, photos, video, narration, text, music and sound effects, over 260 topics in all, every one with a wealth of multimedia material, bringing each subject to life as never before. Subject range from the ball point pen to the space shuttle.

INSIGHT:DINOSAURS



INSIGHT:DINOSAURS is the second title in the INSIGHT series, a lavishly produced title rich in multimedia. You can be assured INSIGHT:Dinosaurs will be visually stunning and technically correct as the title is being produced in association with the British Natural History Museum, one of the world's foremost centres of excellence in the field of paleontology.

Also includes quizzes, puzzles and dinosaur paintbox.

PANDORA'S CD



PANDORA'S CD shows you just what can be achieved with multimedia and your Commodore CD system, an all original promotional disc containing something for everyone. Five Senses production, the Nuclear industry, number counting game, Milton Keynes guidebook, jukebox, clipart library, photo library, textures library, sound effects library and a sampler of INSIGHT:Technology. Sample the wonderful world of Optonica multimedia.

INTERPLAY AVAILABLE OCTOBER 93 AT £995.00
PANDORA'S CD AVAILABLE NOW AT £4.99
INSIGHT:TECHNOLOGY AVAILABLE OCT 93 AT £CALL
INSIGHT:DINOSAURS AVAILABLE NOV 93 AT £39.95

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InfoNexus is a sophisticated file management system with integrated multimedia and network support. An ideal replacement for both workbench and CLI users. InfoNexus features a full on line help system. As well as having the ability to move, copy, delete, rename files, InfoNexus allows you to view/hear/launch just about any file. InfoNexus is simply the best File/Data manager on the market today!



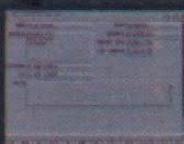
ALL AMIGAS 1 MEG RAM MIN



£29.95

DATANEXUS NEW!

DataNexus is a very powerful and configurable, yet easy to use, flat file database. Its integral multimedia support for images, samples, text, music, animations, amiga guides, CDXL motion video, program & script launches make it ideal for just about any data storage and retrieval project. Full visual print layout and mail merge make DataNexus a must for your data.



ALL AMIGAS 1 MEG RAM MIN



£350.00

SIMPATIC2+ VTL

Simpatica allows Amiga and 24 bit image sequences to be rendered to video tape frame by frame producing the same results as products costing over ten times as much, ie, smooth video playback at 25 frames per second. Simpatica has been on sale, and improving, for over four years so you are guaranteed a reliable product. Supplied with both hardware and the bonus program Video TimeLapse, there is no better choice for video professionals.



ALL AMIGAS 2 MEG RAM MIN
80% AMIGA USER INT MAGAZINE



£749.95

INTERPLAY

Interplay is a unique product for the Amiga, it allows you to produce CD32 applications to the very highest commercial standard and was written specifically for the CD32 so no other Amiga authoring system comes close. Interplay was used to produce the three highly acclaimed titles below.



ALL AMIGAS 4 MEG RAM + HARD DISK MIN : 8-16 MEG REC

90% AMIGA USER INT MAGAZINE
93% CDTV USER GROUP NEWS



£4.99

PANDORA'S CD

Pandora's CD shows you just what can be achieved with multimedia on CD. An all original promotional title containing something for everyone, from educational productions to point of information, picture, texture, clipart and sound libraries, a jukebox, children's games and a sampler of Insight Technology. Simply a must for anyone with a Commodore CD system!



CD32 - CDTV - A570

87% AMIGA FORMAT MAGAZINE
88% AMIGA USER INTERNATIONAL MAGAZINE



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INSIGHT:TECHNOLOGY

INSIGHT:Technology, lavishly produced by Optonica and published by Commodore, gives a fascinating look at modern technology with pictures, animations, photos, video, narration, text, music and sound effects, over 260 topics in all from the ball point pen to the space shuttle.



CD32 - CDTV - A570
87% AMIGA FORMAT
91% CU AMIGA



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INSIGHT:DINOSAURS

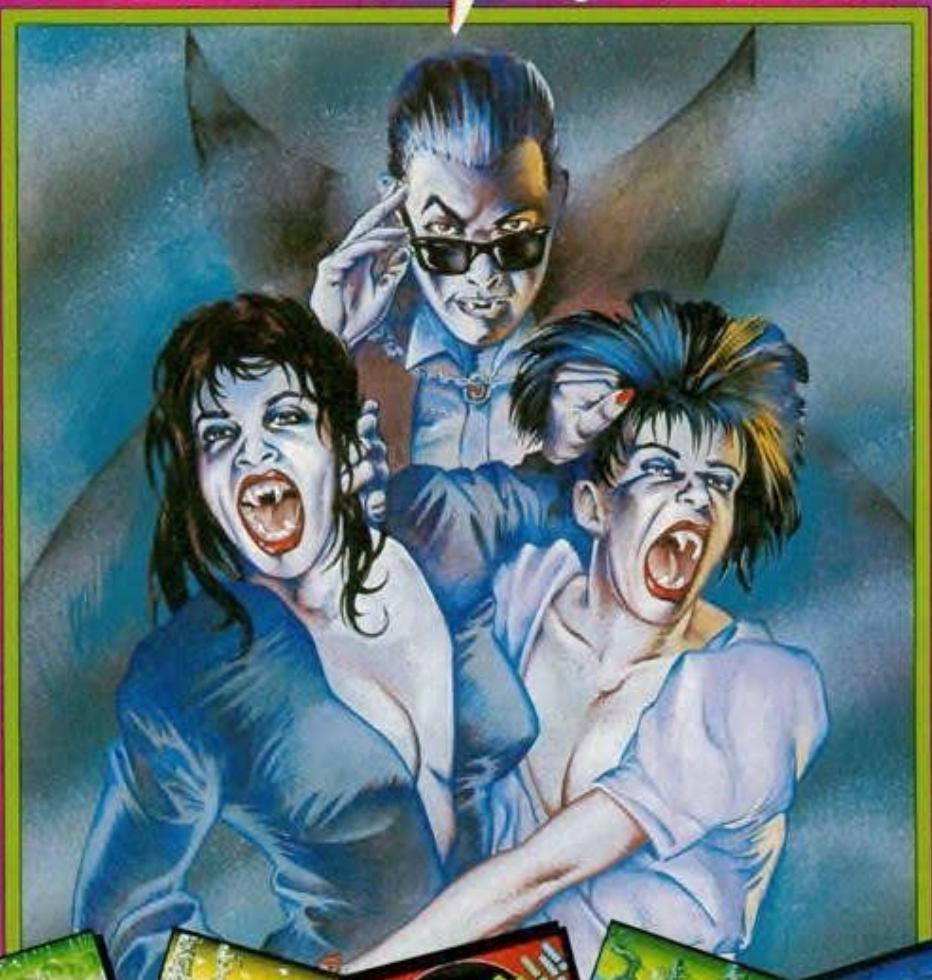
INSIGHT:Dinosaurs is the second in the INSIGHT series, a lavishly produced, highly acclaimed title, rich in multimedia. Produced in association with the Natural History Museum, London, one of the world's leading Dinosaur centres of excellence, you can be assured that Dinosaurs is both technically correct and produced to the most exacting standards. Also features: DinoPaint, DinoQuiz and DinoPuzzle. INSIGHT:Dinosaurs has had the best reviews of any CD32/CDTV reference title so far (lowest mark 88%), see for yourself why.



CD32 - CDTV - A570

92% FORMAT GOLD AWARD
91% CU AMIGA (TOP RATED)
96% CDTV USER GROUP NEWS
90% COMPUTER SHOPPER

Brides Of Dracula



In the depths of Translyvania lies the castle of the Eccentric Egomaniac Vampire Superstar Count Dracula. In his never ending quest to prove what a guy he is to all his chums, he's decided to get seriously married. He already had a tip off that the nearby village of Bistritz is home to some thirteen particularly foxy chicks - just the number he was looking for!

"Only Gonzo Games could take what seems to be a sensible plot - mix it with Monty Pythonesque humour and twist it around until it is beyond recognition - and still bring off the idea superbly. That's exactly what Gonzo has done so expect the unexpected" Atari ST User Star rating Accolade 92%

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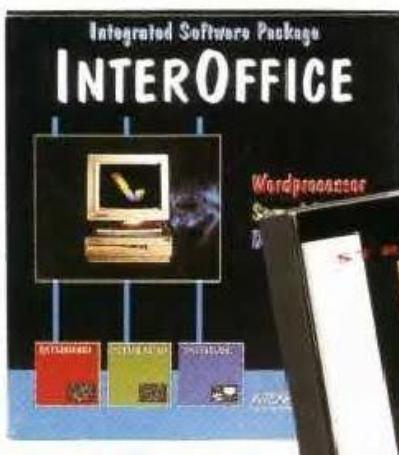
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"SCREENSHOTS FROM AMIGA VERSION"

HELT NYE OG SPAENDENDE
software-pakker
FOR AMIGA CDTV OG AMIGA 1200

InterOffice CDTV

INTEGRERET SOFTWARE-PAKKE FOR **AMIGA**



PAKKENS INDHOLD:

- Tekstbehandling, der senere kan udbygges med ordbogsdiskette
- Regneark • Database



MED I KØBET...

Cover Girl Strip Poker

Sjovt og underholdende pokerspil, hvor du, blandt andre kan udfordre Trine Michelsen

AMIGA CDTV koster lige nu kun **2.995,-**
incl. Gyldendals leksikon FAKTA men excl. monitor hos **euroACTIV**



AMIGA 1200 koster lige nu 3.995,- excl. monitor

InterOffice version 2 1200

INTEGRERET SOFTWARE-PAKKE FOR **AMIGA**

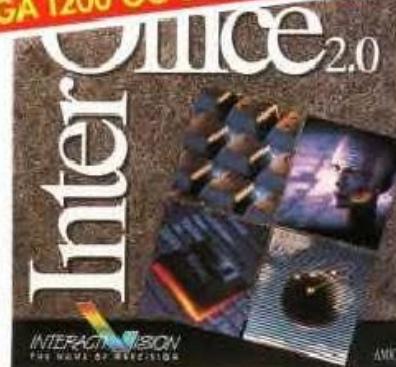
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Emotional
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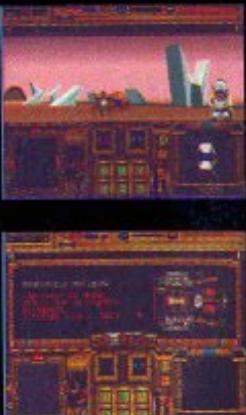


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Le tableau de bord multi-fonctions



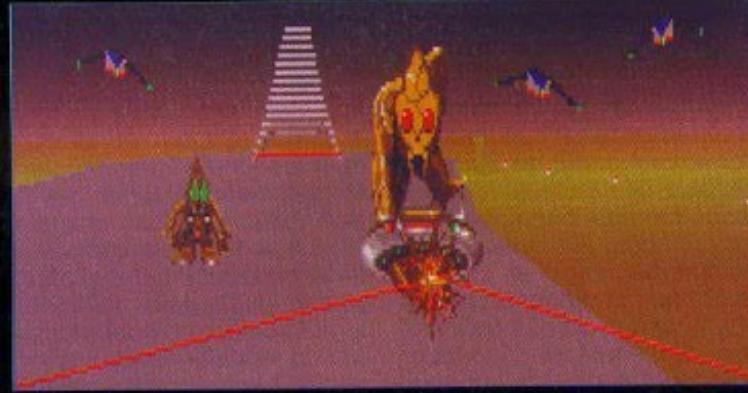
Animations 3D et Bit-map parfaitement intégrées



En mission secrète, sur la planète Kaiser, vous êtes rapidement impliqué dans les conflits tortueux qui s'y tramont: kidnapping du chef religieux rachnouiste, révolte des technorobots, guerre possible entre des factions de l'armée. Pour couronner le tout, Dale a disparu...



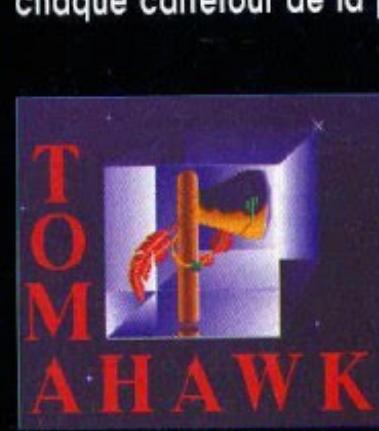
Le bar des Centauriens: repaire des aventuriers et de la faune exotique des confins de l'univers.



Des pièges, des émotions fortes, des séquences de vol et de combat, des mystères vous attendent à chaque carrefour de la planète...



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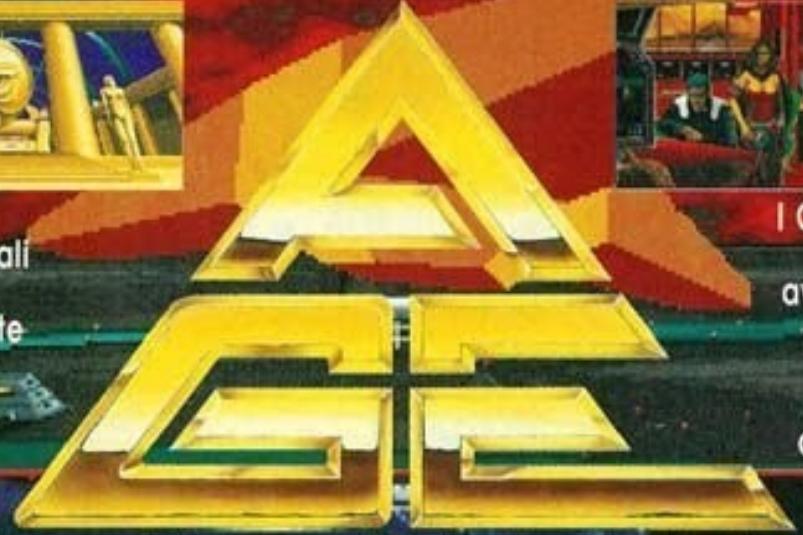
Aux frontières de l'univers
LE CHAOS
étend
son
ombre



Animazioni
tridimensionali
e bit-map
perfettamente
integriati.



I Centauriani :
covo degli
avventurieri e
della fauna
esotica ai
confini
dell'Universo.



Ai confini dell'Universo : IL CAOS

*est de
la sua
ombra*



Il quadro comandi multifunzionale



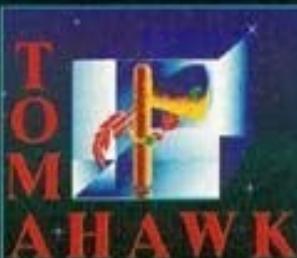
In missione segreta, sul pianeta Kaiser, vi trovate rapidamente coinvolti nei tortuosi conflitti che in esso si tramano : rapimento del Gran Sacerdote Rachnuista, rivolta dei technorobots, guerra possibile tra le fazioni dell'esercito. E il colmo dei colmi, Dale è scomparso...



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sequenze di volo e
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attendono ad ogni angolo del
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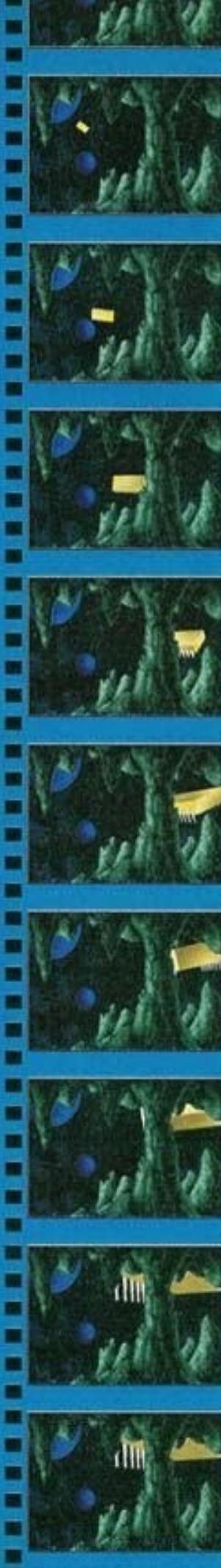


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DISTRIBUZIONE ESCLUSIVA

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I Bargoniani stanno **realmente** attaccando la terra per mezzo del gioco **Bargon Attack** : infatti quando sparate ad un Bargoniano sullo schermo, non fate altro che farlo materializzare **realmente** sulla terra. Allora forza ragazzi ! State all'erta e schierate i vostri joystick ! Come lo so ? Chiedetemi piuttosto come faccio a restare vivo !

Dove vado ? Su Bargon, a salvare la terra ! Sì ! senza di me la terra è spacciata !

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COKTEL VISION

DISTRIBUZIONE ESCLUSIVA
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News Articles



GAMEST-X

XENON 2 – CDTV

Megablast is the first of two Mirrorsoft CDTV games to appear after the Commodore launch three weeks ago. Promising several sexy aesthetic enhancements over the original, the game itself remains exactly the same, while



the sound, always one of its strong points, gets a considerable boost in the form of 12 CD-quality music tracks from the likes of Tim Simenon and Betty Boo to bop along to as you play.

The "album" of tracks includes a remix of Megablast produced specially for the game. The music uses the new Roland Sound Space (RSS) system to produce some mind-blowing special effects. Other minor improvements include an in-game instruction manual and a variety of foreign languages – including Xenite.

Xenon 2 is due for release later this month at a tentative price of £29.99.



FALCON – CDTV

The Falcon Collection is the second of the two Mirrorsoft CDTV games. It comprises the original Falcon along with Mission Disks 1 and 2 – 36 different missions in all. Again the games remain effectively unchanged, but extra graphics and sound have been added. Real video footage accompanies the mission briefings while real speech is used to convey radio messages during flight.

The Falcon Collection is set to follow in June at £34.99, watch out for the reviews.



NORTH POLAR EXPEDITION

Virgin Games has called upon the photographs of Sir Randolph Fiennes to illustrate the CDTV game, *North Polar Expedition*. The game sees you on a trek across the desolate regions of the polar wastelands as you attempt to reach the North Pole.

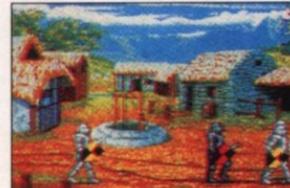
Using a role-playing style of gameplay, *North Polar Expedition* can also be used as an educational tool. The game is due out any day now

and will cost £49.99, that includes a copy of Sir Fiennes' best-seller, 'To the Ends of the Earth'.



SPIRIT OF EXCALIBUR

Another title from Virgin is also making its debut on the CDTV and CD ROM. Combining role-playing, adventure and hack 'n' slash styles of gameplay, *Spirit of Excalibur* is due for release this month. Costing £29.99 on the CDTV, it's well worth a look.



WING CO ON CD

Mindscape's highly popular aircraft simulation has been produced on CD ROM and to accompany the highly acclaimed title, is the extra sortie *Secret Missions 2*.

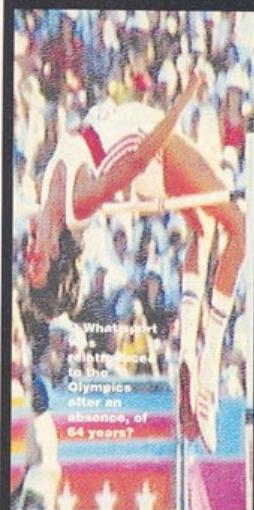
Other Mindscape titles are destined for release on CDTV including Origin's *Ultima 6*, and there is the possibility of the other titles in the Ultima range making their way onto CD.

The sound and graphic-based questions will obviously be the most improved, with celebrities such as Patrick Mower, Enn Reitel and Kate Robbins providing the voices of the cartoon-style characters that ask the questions. And of course, players will no longer have to identify a piece of music from a tinny computerised rendition – now you get to listen to the real thing.

CDTV TRIVIAL PURSUITS

Domark is the latest company to pledge support for Commodore's Amiga-in-a-black-box, the CDTV, by dredging up one of its old favourites, *Trivial Pursuit* and adapting it for the CD-driven wonder machine.

CDTV Trivial Pursuit promises to be a considerable improvement



over the previous computer-based adaptations, featuring 2,000 questions, every one coming with a tinkling of music or illustration of some kind.

The sound and graphic-based questions will obviously be the most improved, with celebrities such as Patrick Mower, Enn Reitel and Kate Robbins providing the voices of the cartoon-style characters that ask the questions. And of course, players will no longer have to identify a piece of music from a tinny computerised rendition – now you get to listen to the real thing.

Apart from that, *Trivial Pursuit* remains roughly the same and there's a good chance of extra question CDs if the game proves a success. It's due for release in September at around the £30-40 mark.

CDTV

Called the "Baby" by those who designed it, Commodore's new interactive CD-ROM unit has been officially labelled "CDTV," which stands for Commodore Dynamic Total Vision. The unit itself looks, very deliberately, like a stereo component; it has a remote control and is just as easy to operate. By giving it this look, Commodore hopes to bring Amiga computing to those who are intimidated by computers in general.

CDTV is actually an Amiga in modular form; a separately available infrared keyboard, mouse, disk drive, and other peripherals can be plugged in to make it a full-blown Amiga. The unit comes with 1 Mb of chip RAM, along with a non-volatile 64K RAM card that fits into a slot on the front of the machine, which will permit games and other data to be saved. The machine has two internal slots, one for video (genlocks, etc.) and one DMA (for SCSI, networking, and the like). The back of the box has the standard Amiga ports (parallel, serial, disk drive) along with what Commodore calls a "hardwired alternative to IR for keyboard, mouse, or joystick." However, the strongest selling point is that it can be hooked up to a regular TV (though it also



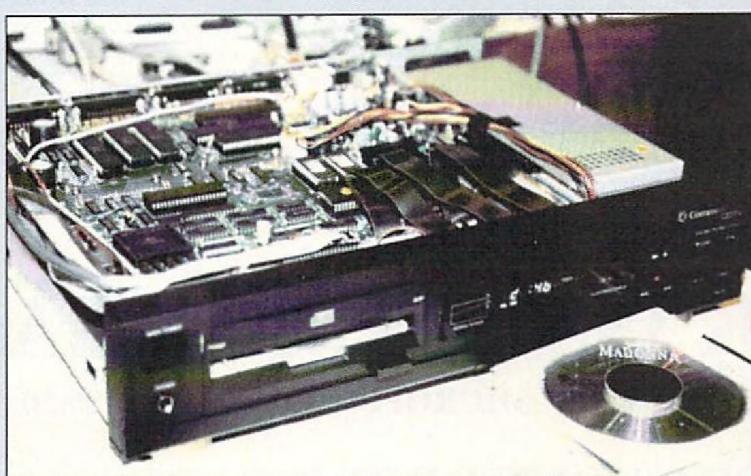
Commodore's
'Baby',
officially
dubbed
CDTV.

has RGB output) and used right out of the box. It's a philosophy that just may work if Commodore takes the right marketing approach. At the official roll-out party, Commodore's newly appointed manager of Interactive Consumer Products division (and Atari founder), Nolan Bushnell, had the crowd at a fair level of excitement until he started talking about using the educational aspect of CDTV as a primary selling point, asserting that it would completely revolutionize education in this country. That's probably a bit optimistic. As several attendees later remarked, the very word 'educational' is usually the kiss of death for any mass

market electronic product. While I don't quibble with the machine's profound educational value, I agree with many others that touting CDTV as the next step in home entertainment systems is the most logical way to push the machine. By the time CDTV units hit the shelves in the Fall, Commodore claims more than 100 software titles, ranging from encyclopedias to cookbooks to what are bound to be extraordinary games, will be available, with 200 available by Christmas. The machine can also read standard Sony/Philips format CD-ROM disks and play audio CDs (at 8 times oversampling) and CD+G disks, another strong selling point. Software developers, and game publishers in particular, are excited by the fact that CDTV will virtually eliminate software piracy. There just isn't any practical way to copy the CDs. While the final price has yet to be set, Commodore says it will be under \$1000. The general reaction at CES was that if Commodore somehow manages to avoid its customary practice of shooting itself in its collective foot, CDTV has the potential to become as widespread as the C64. Apple pushed the Mac as "the computer for the rest of us", but I think CDTV fits the description much better. CDTV could be the computer for the rest of the world.

- Tom Malcom

'Baby' guts,
showing how
much
Commodore
can cram
into a small
space.



CVG NEWS

SPECIAL REPORT



WHAT IS CD-ROM ANYWAY?

The ideas behind CD-ROM (Compact Disc Read-Only Memory) aren't really that different from the principles involved with floppy disks, it's just that far more information can be stored on a compact disc (about seven hundred disks' worth of data can be crammed onto one CD). In short, programmers are no longer limited by the amount of memory they have to spare when programming games. This in itself should revolutionise the games we play by providing massive amounts of levels, CD-quality sampled sound and almost unlimited game-play. Well, that's the theory anyway.

THE CDTV UNVEILED

Although the casing may make the CDTV look more like a CD player than a computer, the CDTV is in fact based on existing Amiga technology. This means that technically speaking, the CDTV is no more powerful than a bog-standard Amiga 500. The CDTV has the same processor (a 16-bit 68000 with a speed of around 7.1 MHz) running the show, and the graphic capabilities of the machine remain unchanged. Without special programming, most games will run with 16 or 32 colours on-screen at once from a palette of 4,096. The CDTV comes with a

megabyte of memory as standard.

The CDTV becomes far more impressive when its CD-ROM is unveiled. Each disc can hold around 550 megabytes of data, and at its fastest, up to two megabytes can be loaded in one second (that's four times as much data as the average single-load Amiga game). The CDTV also doubles up as a normal CD player, and also has capabilities for playing CD Video discs.

INS AND OUTS

The CDTV has built-in ports that enable users to connect the machine to their stereos (to gain maximum benefit from the CD-quality

sound), as well as MIDI ports, printer ports and joystick/mouse ports. There's also capabilities to make use of a standard Amiga external disk drive. There's even a stereo headphone socket for private listening.

INFRA-RED CONTROL

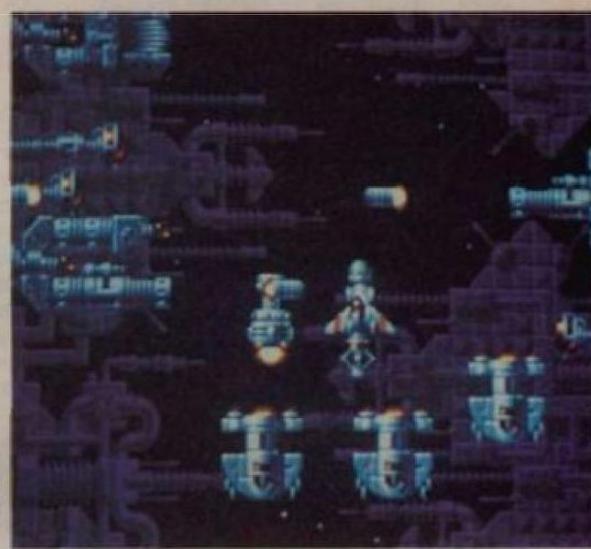
Rather like your TV or video, the CDTV is controlled via an infra-red control unit. Along with numeric keys, the control unit also doubles up as a joypad as sorts. All of the CD-audio commands (for playing, pausing, altering volume levels and the like) can also be accessed with this pad. You

can even turn your CDTV on and off with this useful little gadget. Commodore also want to release an infra-red joystick and trackball for the new machine.

SMART CARD CITY

There's only one problem with CD-ROM. Unlike floppy disks, you can't actually save data on a CD. So, like the Neo-GEO, the CDTV has the option to use personal smart cards. The main use of these cards to games players will probably be to save your position in a game. Personal smart cards hold up to 64K of data.

Commodore's Daring Techno Venture



POTENTIALS UNLIMITED

Because of its large storage capabilities, the CDTV has great potential as an educational tool, and the first products available for the machine will be encyclopedias and other educational programs, so the CDTV could well turn up in classrooms before too long.

Lucasfilm are one games company expanding into CDTV territory. The new Indiana Jones adventure title (*Indiana Jones and the Fates of Atlantis*, due out later this year) is a much bigger game than the first, and features perfect reproductions of the brilliant John Williams movie scores, and a lot of very effective incidental music. Their other graphic adventure games make heavy use of the CD for storing vast amounts of hand-drawn then-digitised scenery.

The CDTV has also attracted a lot of interest among British software companies. Mirrorsoft are promising to release *Defender of the Crown* (ageing strategy game), *Falcon* (great simulation of the F16 fighter) and *Xenon 2: Megablast* (the Bitmap Brother's superb shoot 'em up - with a CD-quality *Bomb The Bass* soundtrack).

Psygnosis, too, have a CDTV game in production, which goes by the working title of *Planetside*. The vast amount of storage space on a CD has meant that their graphics artists can really run riot on the sort of astounding ray-traced scenes that have featured in the intro sequences of many Psygnosis games.

What makes development easy is the fact that most pro-

grammers are very familiar with the Amiga, so they shouldn't have that much difficulty getting to grips with, and making the best of, the new system.

THE VERDICT

There are only two problems with this potentially superb machine. First of all, Commodore are branding the machine as a home entertainment device, rather than just another computer, and the expected price tag is £700.00, which puts it out of the reach of most people who would use the machine for leisure purposes.

Secondly, the Amiga heart of the CDTV is six-year-old technology and although the Amiga is a good machine, it has been technically surpassed by the likes of the Megadrive and Super Famicom - both of which have CD-ROM drives on the way, which will be far cheaper and potentially even more impressive.

However, Commodore see the CDTV as a tool for use in education. The whole of the Encyclopedia Britannica can be stored on one CD and many education products are lined up for release. The CDTV could also come into its own in business, with the unique remote control interface allowing immediate access to massive databases.

But for most home users, it's the games that count and it remains to be seen how the CDTV will measure up in this area and how it will compete with the console-based CD systems.

Its launch date isn't decided, its price isn't set, even its name is unclear – but it's here

THE KEY TO

When Commodore's new Amiga CD-ROM drive finally arrives later this year, Amiga owners will be offered a brave new whirl of multimedia applications. In this exclusive review of the final prototype, Amiga Shopper takes the lid off the machine everyone has been waiting for...

Until now, the possibilities of CD technology have been available only to a handful of CDTV owners. The imminent launch of Commodore's CD-ROM drive will change all of that...

CDTV was launched back in April 1991. It heralded a new era, providing a multimedia system cheap enough for home use and based on existing Amiga technology. Commodore promised not to leave Amiga owners out: it's been a long time, but CDTV compatibility is finally about to hit the Amiga in a big way.

The device to do this is its CD-ROM drive. Formerly known as the A690, it has been subject to a last minute name change to the A570. The pre-production model we looked at is still badged with the old name. Aside from this, the lack of a manual and bundled software, it is the one that should be shipping.

DESIGNER DRIVES

In appearance the A570 is very much like the A590 hard drive: it comes in a similarly styled, though perhaps

smarter, case, and uses another Commodore 'Brick' power supply. Like the A590 it can be expanded to 2Mb of Fast RAM with the addition of a memory card.

At the front is the CD-ROM drive and an eject button. Slightly below this is a headphones socket, a volume knob that doubles up as an on/off switch, and two lights: a power light and a drive activity light.

At the back are the connectors for power and audio. There are two sets of audio sockets: one is connected to the audio-out on the Amiga 500 by a pair of supplied leads, and the other is the combined CD and Amiga audio out to connect to a monitor or stereo amplifier. There is also an expansion slot; the same slot as found on the CDTV.

Currently there are no cards available to the public that use this slot, although developers have had CDTV SCSI cards for quite some time now. One of these can be plugged into the A570's expansion slot without problems, enabling a SCSI drive to be linked up to the Amiga. It



The A570 CD-ROM drive in all its glory. The prototype model we looked at was still badged as an A690. As can be seen, the styling is similar to the A590 hard drive – too bad you can't have both next to each other

does not seem possible to link both the 2Mb expansion memory and the SCSI controller to the A570 together at the moment.

Installation of the unit is simple – if you have an A500 Plus – just plug in and go. There's a problem with earlier Amigas, since most CDTV titles need 1Mb of Chip RAM to run. So a 1Mb Chip RAM modification is needed if the A570 is to be anything more than an expensive audio CD player.

On start-up, the flashy rotating CDTV logo is displayed. From now on the Amiga operates as a CDTV, although the floppy drive is still active and normal software can be loaded. Should anything not work with the A570 it can be switched off, returning the Amiga to normal without the need to detach the drive.

THE DIFFERENCE ENGINE

There are differences between the CDTV and the A570 drive. The A570 does not have the CDTV video slot.

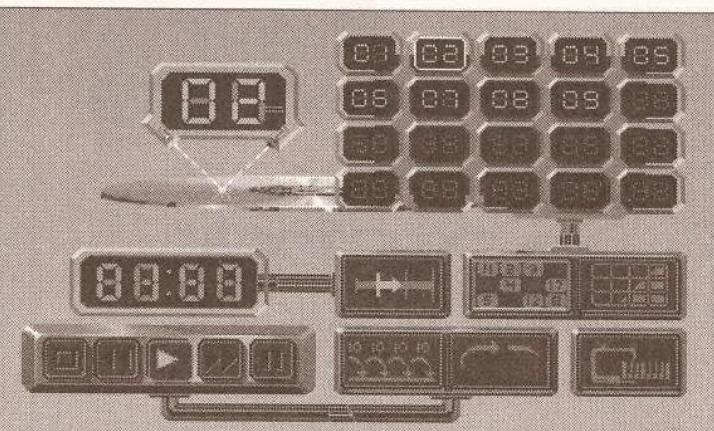
Ch ch ch changes

It's important to remember that what we saw was a pre-production model – the version which goes on sale should be the same, but it may not be. There may well be technical adjustments, possibly even a further name change.

As yet, a price has not been fixed. It is hoped that the A570 will sell for under £300. £299 seems to be a likely figure.

Neither has a release date been confirmed, although we expect it to be out by the end of April or the beginning of May.

Finally, we ask our readers not to phone Commodore asking for a release date – the last thing the people there want is thousands of calls about a product that's not even available yet. We'll keep you posted with details as soon as we get them.



The display that you'll see when playing an audio CD. There are no controls on the drive, so play, fast forward and so on are handled by mouse clicks

Take a trip into the future as we greet Commodore's brand new baby



AMIGA CD

This slot is for adding the Commodore Advanced Video Mode card, which, using the same technology as in Digital Creations DCTV (see the review on page 35 for details), gives CDTV a pseudo 24-bit graphics capability. It is possible to get around this by adding a DCTV box to the Amiga, but this is less than cost-effective: for the price of a DCTV board you could get a new CDTV and an AVM card.

Another difference is the lack of a RAM card slot on the A570. Not to be confused with a RAM expansion slot, the RAM card slot is used by some of the earlier titles for recording saved game positions. At any rate, the RAM cards are not widely available.

Most importantly, the A570 lacks CDTV's buttons to directly control audio CDs. On the CDTV it is possible to play an audio disc whilst playing a game loaded from floppy; on the A570 this is difficult, if not impossible.

TOMORROW'S WHIRL

With the A570 drive the Amiga is open to a whole new world of CD media. For a start, it can play standard CD audio discs. The audio quality is quite good. While not quite up to the standard of top of the range dedicated CD Audio players that hi-fi fanatics buy, the Panasonic-built mechanism provides better

Although the A570 is undoubtedly 'a good thing', there are one or two points of concern.

Firstly, owners of standard Amiga 500s will, if they haven't already done so, have to upgrade their machines to 1Mb of Chip RAM (the memory used for graphics and sound). Although the A570 itself doesn't require this, most of the CDTV programs do. Upgrading involves opening the machine, invalidating the warranty, and making some adjustments to the circuit board - Commodore recommends that a dealer carries out the modification. Older machines will also need a Fatter Agnus chip installed to provide 1Mb of Chip RAM, which will cost about £50 plus fitting.

So far as operating system compatibility is concerned, the A570 works with both 1.3 and 2.0

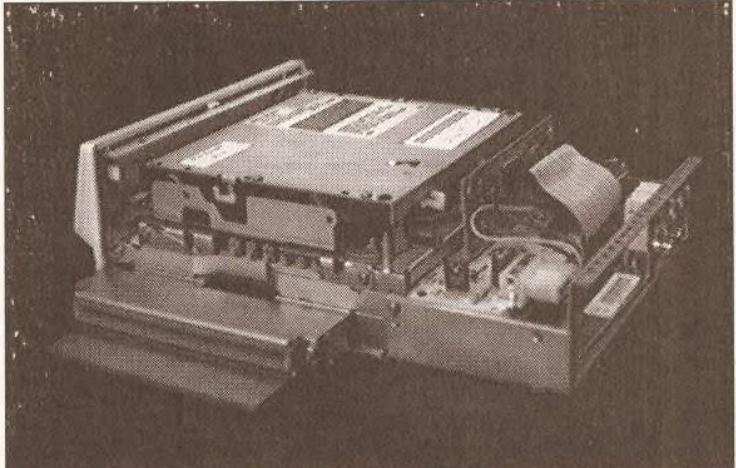
sound than most of the cheap and cheerful players found in the high street chains.

In addition, the Amiga 500 linked to the A570 drive is one of the few systems in the world that can play the CD+G and CD+MIDI discs. CD+G (Compact Disk Plus Graphics) is a format that combines simple graphics with standard audio discs. There are several Karaoke discs on release already using this format, and Warner New Media has just released a range of classical music using this format.

CD+MIDI is a similar format, except that MIDI information is also included alongside the audio.

The main use of the A570 drive, of course, will be to play CDTV multimedia discs - essentially Amiga programs with up to 550Mb of disc space containing data or audio tracks. The potential of this system is only beginning to be tapped, yet already there are reference works which do far more than the medium of paper ever could: not only can you retrieve information on a subject, you can view digitised pictures of it, watch animations of it, hear related sounds and pieces of music, and search for information connected with it.

Just about every CDTV title works without fault on the A570 drive. There are exceptions. *Music Maker* relies on the numeric keypad having 1-2-3 at the top and 7-8-9 at the



And this is it - the very innards of the beast. Sadly, the laser is not visible, but you can be sure it's there, ready to read 550Mb from a single disk

bottom, whereas on the Amiga keyboard it's the other way around. An 'A570 compatible' version will soon be available. Other problems were more serious. *The Time Line of History* series would not work on an A500 Plus connected to an A570 drive, although it worked fine with a standard 1.3 Kickstart machine.

New CDTV titles are all being tested with the A570 drive before dispatch to prevent this type of problem occurring in future.

SHOPPER SEZ YEAH!

The A570 CD-ROM drive is an exciting product that many Amiga owners have been eagerly awaiting.

Despite a few minor complaints it is definitely worth getting. If you haven't already got a hard drive you can add one cheaply to the A570. If you have got one then it might be an idea to wait until a model with a through-port is released (which, if there is enough pressure, Commodore will almost certainly have to do).

Although an exact date is yet to be fixed, the A570 should be on the streets by May - look out for it at the *Amiga Shopper Show*. An exact price has so far not been finalised, but it is Commodore's intention to release it at under £300, to which *Amiga Shopper* can only reply 'the price is right'.

TECHNICALLY SPEAKING

versions of Kickstart. It will not work at all with Kickstart 1.2, but rather presents a challenge to the die-hards to finally upgrade.

Certainly the biggest complaint against the A570 is its lack of a through-port. This means that the A570 cannot be linked to an Amiga 500 if there is already something connected to the expansion bus, in particular a hard disk drive such as the A590 or the GVP Impact II. Commodore claims that there are technical difficulties in adding such a through-port, yet this hasn't stopped several third-party manufacturers from including one with their hard drives.

Those who don't already own a hard drive will suffer no real hardship - a SCSI card will soon be

available to plug into the A570 to enable a hard drive to be added cheaply. Others can only hope that Commodore relents and releases an A570 with a throughport.

At present, Amiga 2000, 1500 and 3000 owners can't use it - the A570 will only plug into the side expansion slot of an A500 or A500 Plus. No doubt a version will be released for owners of the more powerful machines but, since something like 90% of existing Amigas are A500s and since CDTV is billed as a home entertainment system, it makes sense for the company to address this market first. In the meantime, owners of larger systems always have the option of buying a CDTV and linking it to the Amiga via the Parnet network.

MORE CDTV TITLES ANNOUNCED

AUG 1992

In an attempt to kick start the CDTV market, Commodore have unveiled a number of upcoming titles which will shortly be available for the almost-forgotten machine.

SHERLOCK HOLMES

Nearing completion is Mindscape's *Sherlock Holmes, Consulting Detective*. Set in the Victorian era of pea-souper fogs and top hats, the game features a live-action mix of full-motion video footage with a whole host of audio-visual clues for the budding detective to solve. The World's greatest detective is ably assisted by his stalwart companion, Watson, as you seek to solve the most dastardly of crimes. Look out for a full review shortly.



THE CONNOISSEUR FINE ARTS COLLECTION

Released at the end of July, the world's first interactive art gallery is set to grace your living room, featuring 500 of the world's greatest art treasures. Developers, Lascelles Productions, have also added a selection of 10 classical music tracks for added enjoyment. In all, the works of some 100 artists are on offer, the collection ranging from classical Greek and Roman art to High Renaissance, 18th Century and The Impressionists. The collection can be viewed by each period, by the individual artist, or as part of a continuous four-hour multimedia presentation.



FRACTAL UNIVERSE

Fractals might be a little old hat these days, but that hasn't stopped Almathera Systems from jumping on the stalled bandwagon with *Fractal Universe*. On offer are three fractal creators as well as an art gallery option which displays a continuous array of fractal images, each one numbered and described. There's also a section detailing the history of fractals and one which attempts to explain the complex mathematics involved in such creations. For further information, ring Almathera on 081 683 6418. Again, we'll have a full review in our forthcoming CDTV column.



CDTV SPORTS FOOTBALL

Unsurprisingly, this title is an updated version of Cinemaware's aging *TV Sports Football* game, which, until the advent of EA's *John Madden's*, was widely acclaimed as the best of its type. The basic gameplay remains the same, the big difference being the enhanced presentation. The game makes use of the CDTV's quarter-screen video capabilities and 'Chromakey' system to produce live-action sequences which appear at relevant points before, during and after play.



CDTV TAKES OFF AT LAST

When Steve Franklin stepped down from the helm of Commodore earlier this year, he'd managed to transform the fortunes of the Amiga from a struggling machine into the best-selling home computer in the UK. Since taking charge of the CDTV, the man with the Midas touch has radically overhauled the company's marketing strategy aiming the machine firmly at existing Amiga owners. 110 titles have already been released for the machine with another 60 ready for release over the next few months. These include CD-specific titles such as *Sherlock Holmes*, *TV Sports Football*, *Wing Commander* and a much-enhanced *Sensible Soccer*. In the new year we'll also be treated to the launch of Psygnosis' *Microcosm* game which looks likely to be the new benchmark for CDTV products.

The latest figures available show that 12,000 CDTV units have been sold in the UK, with 10,000 apiece in Germany and Italy. It's hoped that after Christmas another 40,000 units will have been sold across Europe. With projected sales of 20,000 A570s also being sold by the new year, publishers could be looking at an installed base of 100,000 users by the start of 1993. And then, hopefully, we really should start to see the CDTV take off.

NOV 1992



Magazine Reviews



Feature!

CD32

Ooh, what a big skull you have! If the skull's that big, your pilot must be a little on the small side. And, yes, as you've probably guessed, there's no pause button, and the ships won't exactly stay still long enough to be shot at.

BATTLESTORM



■ Titus

After returning from your travels to the galaxy's distant corners, you find your home planet's been invaded by an army of evil aliens. Vowing to exact terrible revenge, you jump into your state-of-the-art airborne attacker and launch an all-out-attack on the enemy installations. The usual scenario you may think. Well yes, but the gameplay more than makes up for the lousy plot. This is one CD-TV disc that'll grace anyone's CD32.

There are four levels, each with two sub-stages to battle through. To overcome the aliens you take their operations out on each stage. To begin with this means destroying the aliens' air attacks; before taking out their ground defences, annihilating Battlestorm, their headquarters, and finally destroying the diabolical guardians to win back control of the planet.

Excellent scrolling, beautifully crafted landscapes and frenetic shooting — all of the things that you'd expect from a decent blaster in fact. Just getting past the first few stages is a challenge and a half!

Shoot at speed

Before getting into the thick of it you're asked to select a skill level, ranging from Rock Ape (easy) to Master (strictly for superstars only!). There's only one place to start and that's easy, otherwise death and destruction are all you can expect.

Each level gives you a different control mechanism for your ship, or a contrasting perspective on the game. For example, to begin with the action's in a huge grid. Fly around it in any direction to hunt out the aliens, then blast them into oblivion! Later levels change so you scroll up the screen only, with no sideways movement. Others move horizontally, with the perspective changing accordingly.

There are plenty of power-ups to collect for your ship. These include stronger laser beams, faster firing-rates, homing missiles and extra speed. On screen messages help you locate power-ups. They're worth getting, especially if you aspire to the later levels.

What's guaranteed, however, are smart graphics, an easily controlled ship and great responsiveness. Basically, *Battlestorm*'s a great game to play for anyone who's a shoot-'em-up fan. Non-stop thrills and spills abound — shoot first, think later's the motto with this game! If you want a fast-paced shoot-'em-up with attitude then this is the one for you.

**amiga
FORCE Rating!**

A rather cool blaster that looks good and plays brilliantly. A bit tough though!

84

Reviews!

COVER GIRL STRIP POKER CD!

On-Line, £TBA

Most reviews of strip poker games end with a sarcastic comment like, 'why spend your money on this when you can buy a pack of cards and a porno mag?'. Flying in the face of convention, we'll begin with this thought, and (after a cold shower,) ask whether a game like this has any real merit at all?

The software company's response to this question is usually 'but magazines and videos aren't interactive'. I suppose this depends on what you mean by 'interactive' (keep that filthy witticism to yourself), but the young ladies in *Cover Girl Strip Poker* play such a shocking game of cards it won't be long before you strip them beyond the bare essentials.

Splash the cash

Both you and the girl start with \$2500. If her funds fall below zero she has to remove an item of clothing and 'sell' it for \$2500 so she can carry on playing. Some models 'treat' you to a black-and-white cinematic strip before reverting to the badly-

“
Why
spend your
money on
this?
”

digitised colour still that sits next to the cards, others don't. I've no idea what happens when you run out of cash as I've never managed to play that badly (and Ian's been playing in a corner of the office with this a lot! —Ed), but if she wins enough money from you she can buy back her togs.

But what about the speech samples?, I hear you cry. Well they're certainly clear (considering they're on CD they damned-well should be). *Mega-lo-mania* on the standard Amiga sounded better than this. Okay the samples were digitised, but at least they used professional actors.

But you can't play poker on your own screams a desperately sad individual who wants to buy this crap and claim it's just for the card game. Maybe not, but there are plenty of PD sims available, and *CGSP* plays a lousy hand of cards anyway. And let's face it, do we really need another game that portrays women as sex objects? When was the last time you saw a fully-dressed woman in a computer game... long time ago, wasn't it? No wonder 95% of gamers are male.

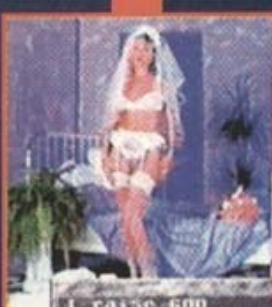
Ian!



YOUR FIVE CARDS ...



Is this the game for you? We sincerely hope not!



Tip
time!

■ Enter your name as INDIGO for a sad cheat to win every game and get to see the gilries undress.



Chris!

■ *Cover Girl Strip Poker* is definitely not a good game. Okay so I got to see plenty of flesh, but that was only because everyone else in the AMIGA FORCE office kept losing so badly! The actual game left a lot to be desired, and not in the way you're thinking either. The game features jerky, monochrome strips and poorly designed stills, which make a really bad job of utilising the CD's capabilities. Basically this isn't worth it. Let's hope that somebody puts the CD32 to better use in the future. ■

amiga
FORCE Rating

■ DEVELOPERS: EMOTIONAL PICTURES

■ DISKS: CD

■ PLAYERS: 1-3

■ GENRE: CARD GAME

■ 1200 COMPAT: N/A

■ HD INSTALL: N/A



■ A lousy game.
Nuff said?

ICD classic review

Oh for the splendour of the medieval age! Imagine a world of chivalry, where men fight for good and righteousness, where women are fair and pure, and where everybody's after what everybody else has got.

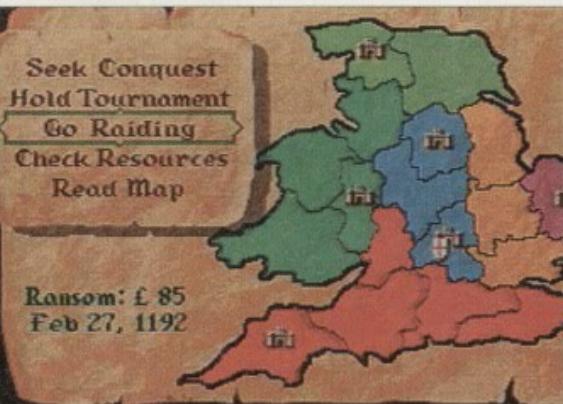


Welcome to *Defender Of The Crown II*. The year is 1172 and, with the goodly King Richard off on the crusades the country is in the evil clutches of the villainous Prince John. Word has reached England that Richard has been captured and is being held to ransom by a group of ruthless infidels and it's up to you and a small band of loyal subjects to raise the cash for his release.

The first thing's to choose which of the available lords you want to play, each of whom have their own individual reputations which will affect how they're treated by other characters during the game. They also have three distinct abilities which you should take note of as you plan your strategy. There's four to choose from in all. Cedric of Rotherwood is the best leader of men, a reasonable swordsman but with limited jousting ability. Wilfred Of Ivanhoe's strength lies in his outstanding jousting ability and decent leadership qualities but his swordsman ship lets him down.

Geoffrey Longsword, as you might have guessed from his name, is well versed in the art of swordplay and also joust rather well but, being a bit of a loner, his leadership is somewhat lacking. Finally comes the wonderfully named Wolfie The Wild — a good old Anglo-Saxon name if ever there was one. Wolfie is okay in the joust but not too hot at anything else. It's important you should choose the right character and then pursue an appropriate strategy through the game.

At the start of your turn, you can choose to conquer another area, hold a tournament, go raiding or check out your resources. To begin with, keep your allegiances intact by avoiding those castles on raids.



Your goal is to raise the grand total of 20 grand, a fair old figure in those days, to pay your share of the ransom. Only then will Richard be released and England freed from John's callous rule.

So the meat of the game — how to raise £20000 in medieval England. Since Barclay's won't lend it to you (swines), you have to fight for it. A number of courses are open to the player, but the first thing to do is recruit an army. In those days the country wasn't an entirely stable place. Many of the aristocracy kept their own personal armies and were very powerful men, threatening even the monarchy. It's with these men that you must liaise battle and trade to raise the ransom money.

To get a bit of money rolling in it's a good idea to occupy as much land as possible and this is done by moving your army into unoccupied territories shown on a map of England. Moving into territories owned by another aristocrat will result in being granted safe passage if you've entered into an alliance with that person, a fight if there's a garrison stationed there, or occupation by your own troops if there's no protection. You can then build a castle to make the territory safer from attack. A good way of making a quick buck is to buy and sell land and, again, it's worth having a castle as this will considerably increase the value.

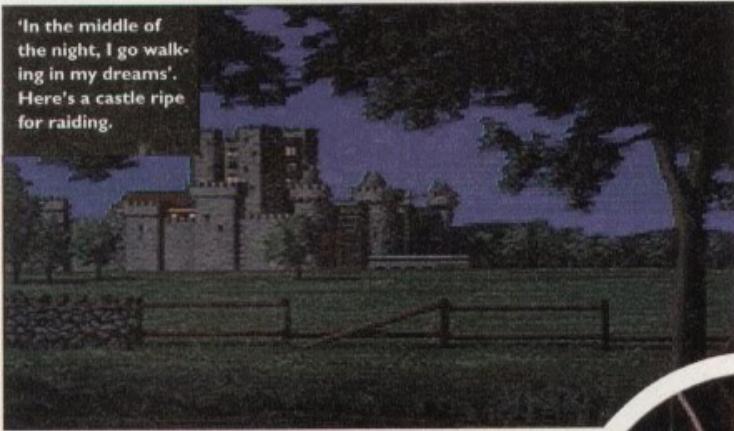
A fun but risky way of gaining money and lands is to hold a jousting tournament. All landowners will be involved and you get to choose the stakes, be it land, money or simply fame. Should you choose land, you get to choose one of your territories to gamble and your opponent will nominate one of his own with the winner taking all. If you'd rather joust for cash you can decide on the stake, though this depends on your opponent. If he's in financial straits you won't be able to raise the prize money above his limit. The fame option is useful



Defender of the

Crown II

'In the middle of the night, I go walking in my dreams. Here's a castle ripe for raiding.'



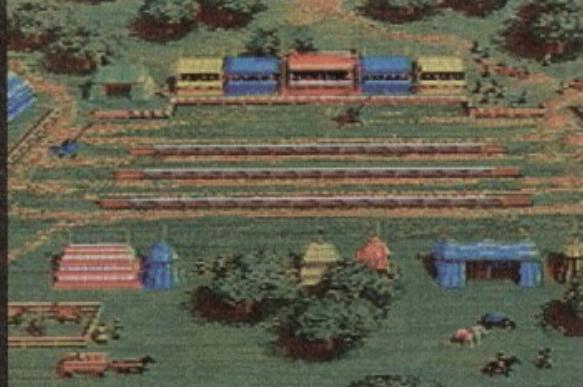
when going up against an opponent with a higher jousting ability than your own. It's unwise in such a situation to risk land or money but with fame you have little to lose. The gains should not be underestimated however. The higher your fame rating, the greater will be the morale of your army, as will the respect with which the other lords treat you. Calling a tournament is also a good way of taking land from allied lords without breaking the allegiance.

If your swordsmanship's up to it, why not try a sneaky raid on an opponents castle? Defeat the castle guards in a series of swordfights to gain access to the castle's coffers then make off with the proceeds. The rewards will vary considerably from castle to castle so it's a calculated risk. It's also the only way to break an alliance. Obviously if a lord thought you were in cahoots, he won't take too kindly to you making off with his loot.

When attacking an enemy castle, you'll need to buy a catapult. You're then taken to a screen where you get to bombard the walls with rocks until they crumble. Then lob a few bombs through the hole before sending your troops in for a scrap. If you want, you can even ask Robin Hood for some help. He'll be more than happy to supply a few extra men for the attack. But not too often, mind.

Presentation throughout is excellent. The many screens are beautifully drawn and really evoke the romantic ideal of the period, as do the atmospheric sound effects. Just listen to the horns at the joust. Sadly the game itself isn't anywhere near involved enough. The catapult section becomes a mere formality once you work out how to do it and, becomes an unavoidable chore. Fighting is simply a matter of watching two numbers diminish until one or the other is declared the winner. After a scuffle, new troops must be recruited from a pool of available men but there's nowhere near the involvement of, say, *Populous*. It's a shame as this was a promising idea but only real enthusiasts of the period will get anything out of this. Most players will quickly tire of the shallowness and lack of freedom. A shame really, as it's one of the prettiest game I've seen in quite some time. ■ MG

Ah, the jousting sessions. These were the days when men were men and women were won on the back of a horse. Hmm, the bizarre things that those medieval types got up to.



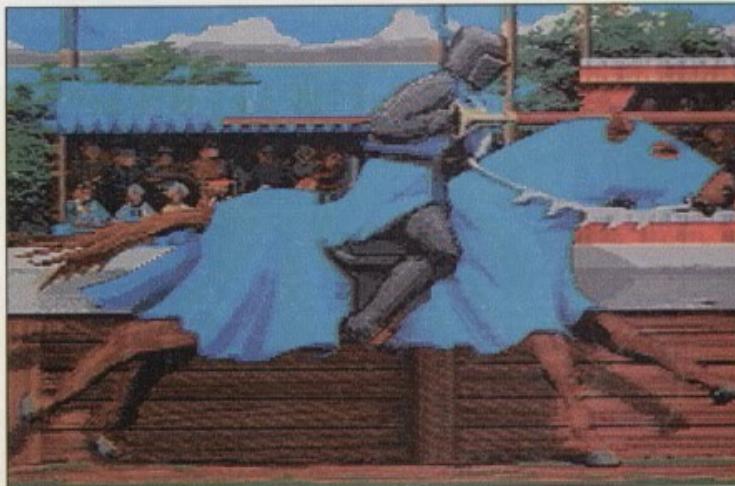
■ PUBLISHER: Commodore ■ PRICE: £check with Game
■ DEVELOPER: Commodore ■ OUT: Now

Wolfric the Wild

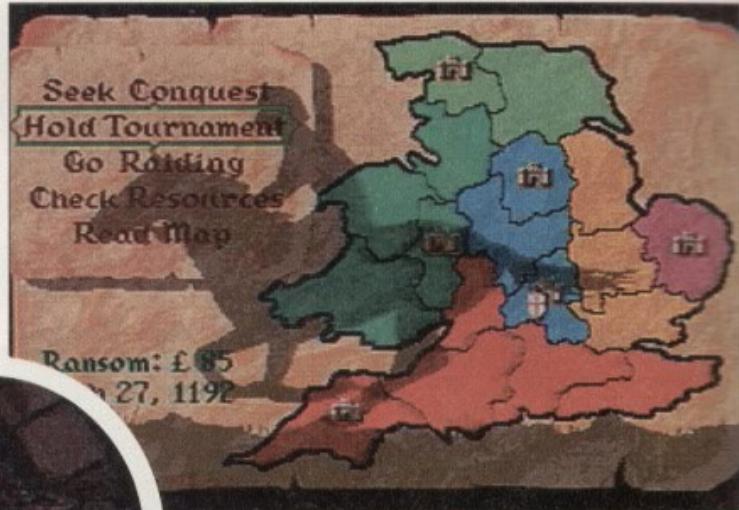
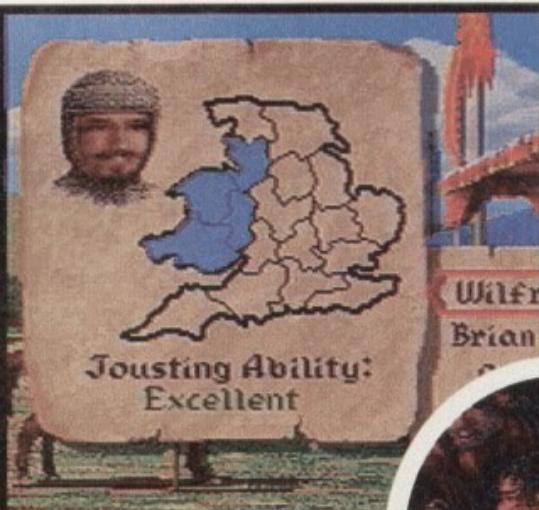
Treasure:	£195
Income:	£170/mo.
Payments:	£69/mo.
Territories:	3
Castles:	2
Castle Guards:	10
Knights:	6
Army:	170
Soldiers:	29
Catapult:	No
Morale:	93%



After you choose to go on a raid, or should you decide to try to rescue a fair maiden, you will be thrust, sword in hand, into the middle of a melee with a guard or two.



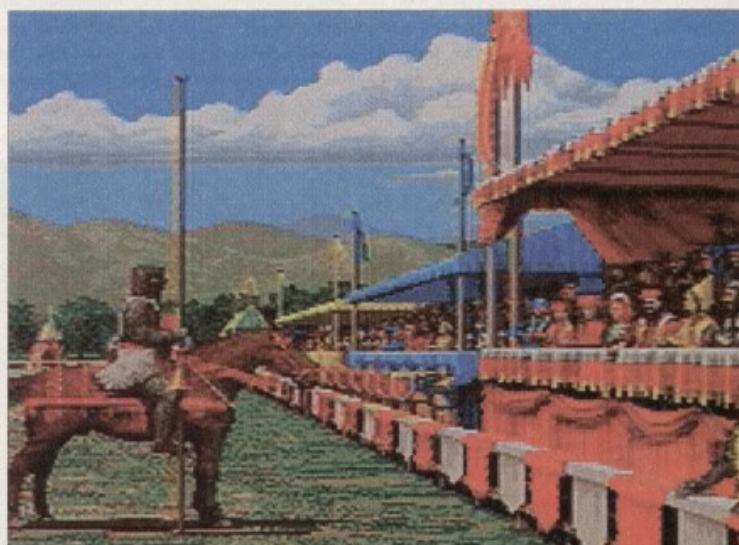
Each individual character is skilled at certain attributes. Young Wilfred here, for example, is a keen jousting, able to knock you off your horse with a single blow. Miles, on the other hand, could knock you off your horse with but one breath after a Saturday night but that's another story altogether.



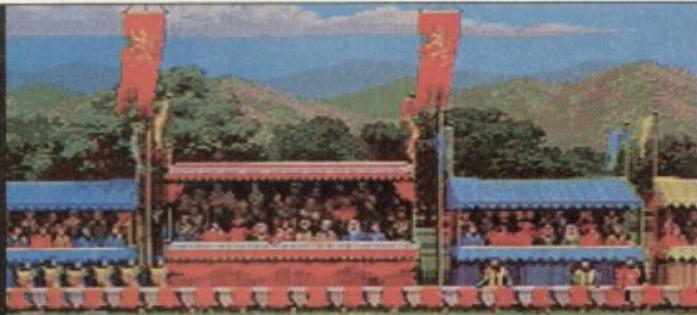
When you try to take out a castle or you enter an area which is inhabited by another army, a battle will break out. You have a degree of control over the outcome, although if you have 100 men to 10, the outcome is pretty much obvious.



As you can see, one horse still has a rider, while the other is prancing about without a sparring jockey. And guess which one belongs to new-bod David? That's right, the red one. If he was sent out in the real world, he wouldn't be able to fend for himself if he couldn't even joust properly. What's the youth of today coming to, I ask you.



In the Red box sits the King and his followers; the blue boxes are for the rest of the travelling posse, while the commoners are forced to watch from between the hedges of the jousting contestants. John Major's classless society, eh? Where was he when the medieval people were hacking each other's heads off? Tsk.



Wilfred of Ivanhoe

Brian De Bois-Guilbert
Edmund the Grim
Reginald Front de Boeuf
Roger Falconbridge



"Presentation throughout is excellent. The many screens are beautifully drawn and really evoke the romantic ideal of the period..."

The Lady Anne has been kidnapped!

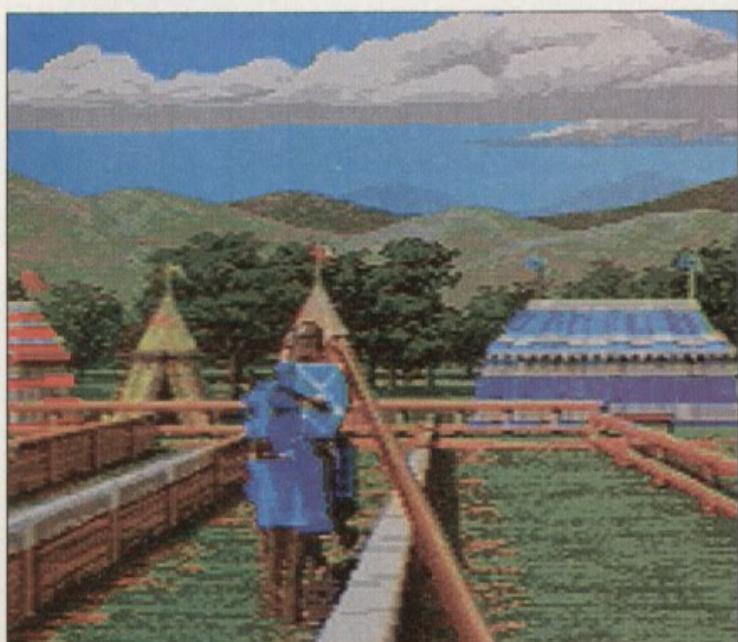
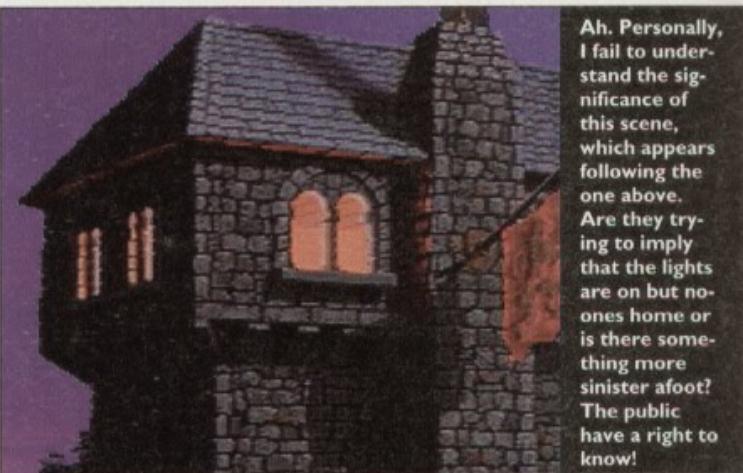
Will you attempt a Rescue?

No Yes

Ransom: £ 800

Jul 15, 1192

Phwoar! Or, rather, not. David's obviously easy to please, since he's off galavanting to save the ugly Anne, but I wouldn't bother. Lets go raiding, or have a curry and too much to drink or something. Hmm, time doesn't seem to have changed some male perceptions...



Profile

I-2 PLAYERS
✓ SKILL LEVEL
✓ SAVE POSITIONS
No
✓ CD32 ENHANCED
Extra music, graphic effects

PROS: Gorgeous graphics and great animation gives the whole thing a very polished and atmospheric feel.

CONS: There's just not enough depth to hold your interest beyond a few plays. It plays almost like a series of simplistic subgames.

GRAPHICS

SOUND

GAMEPLAY

78%

Feature!

CD! FANTASTIC VOYAGE

■ Centaur

Calling this *Fantastic Voyage* must be somebody's idea of a joke! This game's truly appalling with nothing in the way of redeeming features. We couldn't believe how slow and awkward it is to play. If this is representative of the majority of CD-TV games, no wonder the system failed so miserably.

Nonetheless it's our duty to run you through the game, so here goes. The scenario's simple but dated which is the way this game looks! Imagine the Cold War's still raging. Okay? Right, well in an effort to get ahead in the arms race, the Americans have perfected a miniaturisation technique thanks to a Czechoslovakian scientist.

The problem is he's the only one who knows exactly how it works and he's discovered a blood clot in his brain. To save him and the project a miniaturised craft and medical crew have been shrunk and sent into his body to destroy the clot. This is where you come in. Guide the craft through the scientist's body and save his life.



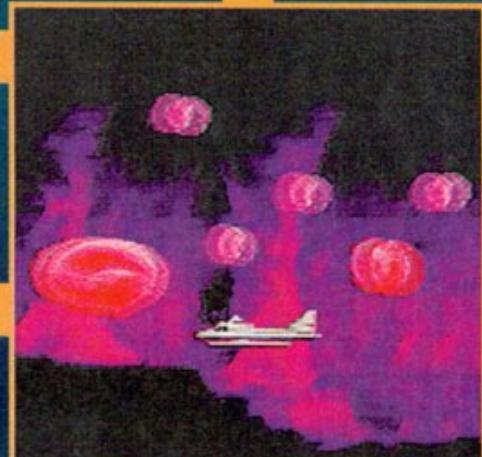
Forget this Voyage!

The game's split into three levels, each taking you through a different section of the body. Throughout your journey the body sees you as a foreign invader, so all of its defences are out to get you. Not that there's a lot to them.

The graphics are incredibly basic, while the movement of both your ship and the body's defences are slow which inevitably becomes terribly irritating.

The major fault's the poor scrolling, removing any sense of urgency from the game. You can't do much to avoid many of the antibodies, while others come onto screen so slowly it's hardly worth the bother.

Sadly, the less said about this one, the better. Our recommendation's to avoid this — you'll only end up being thoroughly disappointed!



Would you like to go on a *Fantastic Voyage*? Well, try a day trip to Torquay because this sucks!

amiga FORCE Rating! **27**

■ Oh dear — a terrible use of a CD based system. No wonder the CDTV failed.



INSIGHT DINOSAURS

Jurassic Park fever may have finally died down, but the interest in dinosaurs has not. Jason Holborn takes a look at Optonica's new CD-ROM reference title.

Despite the popularity of CD-ROM reference titles on the Apple Mac and PC, Optonica seem to be just about the only company that have continued to produce such titles for Amiga CD-ROM owners.

Their latest title is *Insight Dinosaurs*, the second in the Insight range of CD³² reference CDs. Not surprisingly, *Insight Dinosaurs* deals exclusively with the mighty dinosaurs, those scaly reptiles that roamed the Earth millions of years before even Amiga Format was launched.

It boots up with a pleasing introduction animation sequence that sets a very atmospheric scene for the information yet to come. Once the animation has run its course, you're taken directly into the title's menu system which has been designed using *Interplay*, Optonica's CD-ROM authoring system. Like previous reference titles, *Insight Dinosaurs* is navigated with the CD³² or CDTV hand controllers.

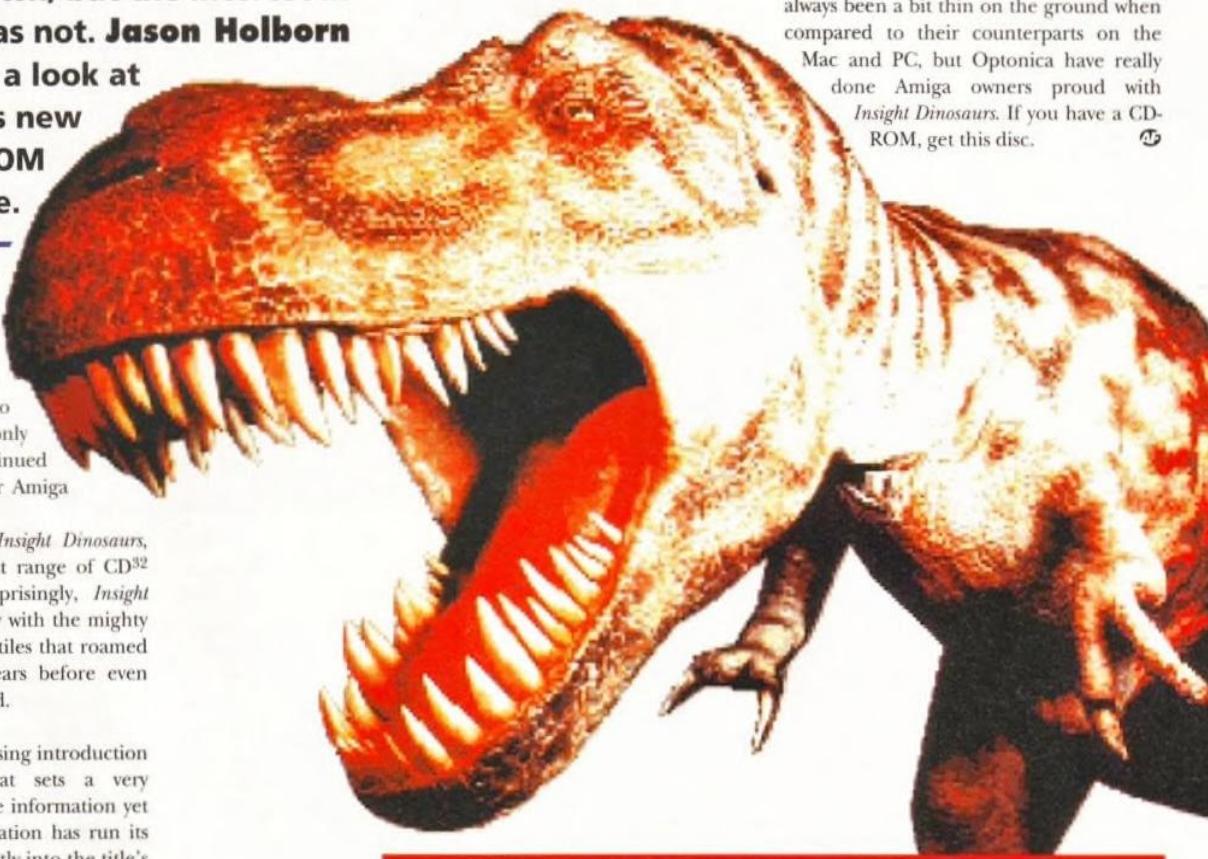
Produced in association with the Natural History Museum, *Insight Dinosaurs* contains an almost bewildering amount of dino facts that should quench even the most eager dinosaur fan's thirst for knowledge and prehistoric trivia.

Subjects covered include dinosaur anatomy, methods of attack and defence, climate and weather conditions and

there's also a detailed A-Z index of your favourite dinosaurs. All this information is backed up by some superbly digitised pictures and the odd film clip or two.

To keep the kids occupied, there's even a special Funsaurus section that offers a quiz to test your dinosaur knowledge; a dinosaur sliding puzzle and a fun little dinosaur colouring book containing a vast range of line art dinosaur images just waiting to be coloured in.

Amiga CD-ROM reference titles have always been a bit thin on the ground when compared to their counterparts on the Mac and PC, but Optonica have really done Amiga owners proud with *Insight Dinosaurs*. If you have a CD-ROM, get this disc.



INSIGHT DINOSAURS

DISTRIBUTOR

Optonica Ltd
0455 558282

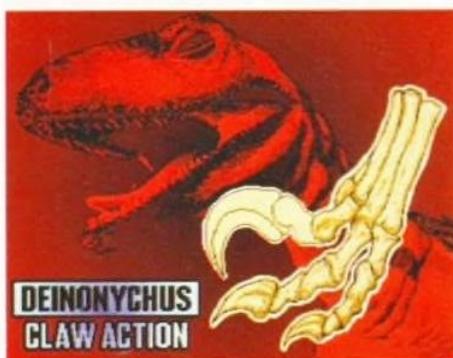
PRICE
£39.95

RELEASE
Out now

DESCRIPTION
CD-ROM educational disc.

"Insight Dinosaurs is a well-designed and beautifully-presented reference title."

92%



DEINONYCHUS CLAW ACTION

Many of the subjects covered in *Insight Dinosaurs* are accompanied by animations and film clips.

The large dagger-like teeth of carnivorous dinosaurs are ideally suited for attack. They taper to a sharp point so that they can easily stab into flesh. The front and back edges of the teeth are lined with sharp serrations, like those on a knife, to help slice through skin and muscle. The teeth are also curved

INDEX **GLOSSARY** **RELATED INFO**

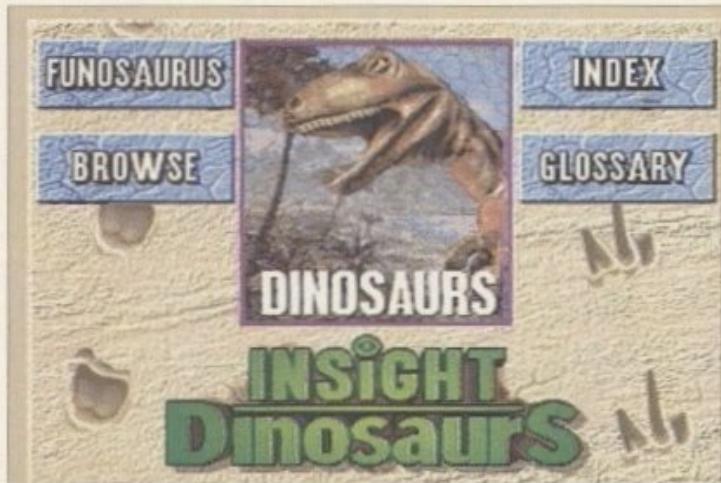
FUNOSAURUS **INDEX**
BROWSE **GLOSSARY**
DINOSAURS **INSIGHT DINOSAURS** **CREDITS**
HELP

Backing up all of those lovely pictures and animations are some solid dinosaur facts.

Navigating your way around *Insight Dinosaur's* menu system is easy thanks to its graphical nature.

CD review

CD encyclopedias have become one of the fastest and biggest growth markets over recent years. Proof of this comes from the ever-expanding list of titles on sale, of which the latest, from Optonica, offers an interesting and detailed examination into the world of... yep, you guessed - Dinosaurs!



I dunno! One bleedin' dinosaur film and the world seems to go bleedin' bonkers. Dinosaur lunch boxes, dinosaur stationary, dinosaur jumpers and now, even a dinosaur encyclopedia on CD. Where will it end? Saying that, *Insight Dinosaur* isn't just another blatant attempt to jump on the bandwagon. This is

Optonica's second hands-on, fully interactive CD encyclopedia and owes more to the Natural History museum than it does to 'that' film. Another thing that separates *Insight Dinosaur* from *Jurassic Park* is that this is actually quite interesting and informative!

Insight Dinosaur basically offers a wealth of dino knowledge at the press of a button. Through its easy-to-use control system, users can access all sorts of information ranging from general info on every known dinosaur to how they lived and died, and even about fossil hunting and the like.

As has already been mentioned, when you first slam this package into your CD32, the first thing that hits you is the sheer size of it. It's absolutely bleedin' massive and to cover everything on show would take reams and reams of paper, not to mention absolutely yonks to write. Unfortunately, we don't have that sort of time, nor space, so here's a rough guide as to what's on offer: first up comes the Life of the Dinosaur. This section introduces the user to all sorts of gen about how dinosaurs lived, their diet and digestion,



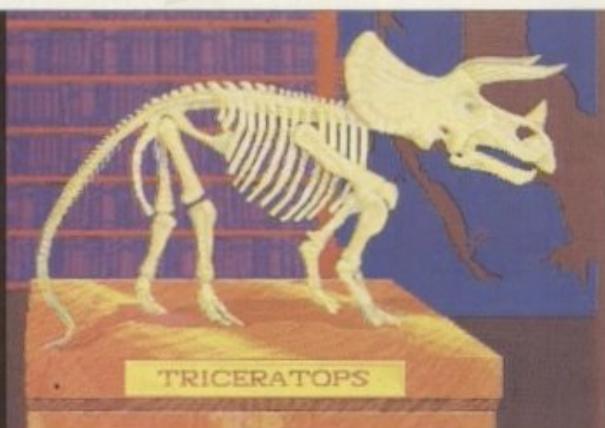
If I was really clever I could tell you what type of dinosaur this was, the problem is, I ain't and I can't. I can tell you that it's got four legs, moves slowly and is clumsy - sounds like the horse Mark backed the other day!

their anatomies, their attack and defence, movement and behaviour and finally the way they evolved. Generally this info is related to the user by a bloke talking about it. To add a bit of visual impact there's also plenty of pictures and even some animated sequences and film footage. To make sure these animated sequences are as realistic as possible, Optonica, drafted in the help of some of the best dinosaur animators in the biz. The result is some wonderful and supposedly, lifelike pictures.

Next section up is the world of the dinosaur which takes a detailed look into one of the greatest unsolved mysteries of all time - why the dinosaurs became extinct? Hundreds of different theories have been suggested as to why they did and '*Insight Dinosaur*' takes a look at several of the more feasible ones and puts the forward the cases for and against each of them, before leaving it up to the viewer to decide which he, or she believes to be more probable.

This second section also examines the climate at the time of the dinosaur and the geology of the land, before delving into the world of fossil hunting and its relevance in our understanding of dinosaurs.

The third and last section is every dinosaur nutheads dream



Insight Dinosaur is like taking a trip around the Natural History Museum, but without all the annoying little kids running around.

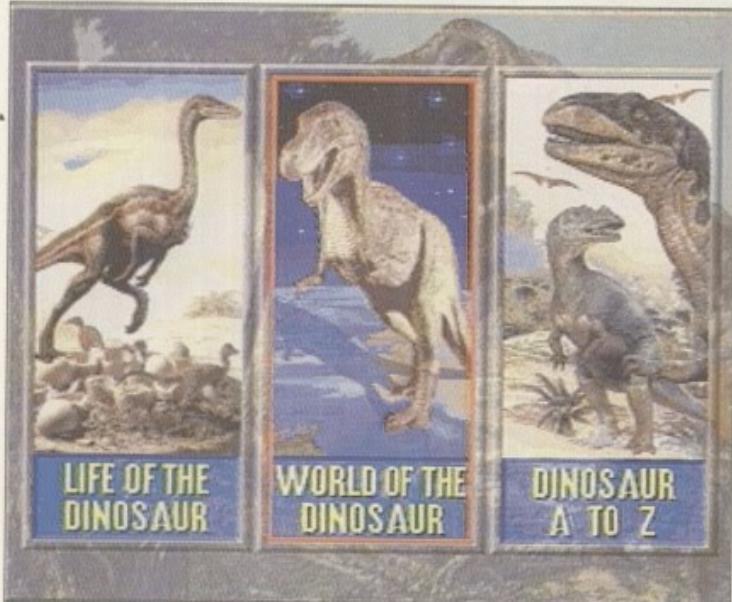
ATTACK & DEFENSE - CLAWS

Claws have a solid core of bone, surrounded by a sheath of a substance called keratin. Keratin is the same substance that hair and fingernails are made of! Keratin is very tough, and can be made into sharp claws (like those of carnivores), or blunt hooves (like those of herbivores). The keratin

INDEX GLOSS RELATED INFO

Insight

Dinosaurs



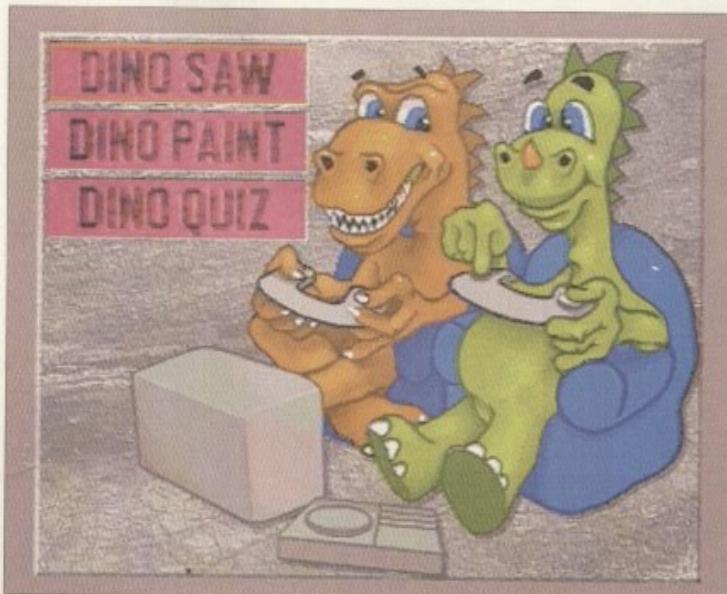
PUBLISHER: Optonica PRICE: £ TBA
DEVELOPER: In-house OUT: Now



It wasn't long back when people had no idea what dinosaurs looked like, but, thanks to the discovery of their remains and painstaking study, artists can now draw what are believed to be accurate pictures.

come true. The A - Z section contains file after file of info on every known dinosaur. From Tyrannosaurus Rex to Diplodocus, they're all there and in comprehensive and impressive detail. Once again, there's also plenty pictures and the odd film footage and animated sequence to spice things up. The geezer babbling on also has a strangely hypnotic and compelling voice that you can't help but listen too.

One of the joys of *Insight Dinosaur* is that it's aimed at all ages. All too often these encyclopedic CD's are aimed at too narrow an age group, but this package is perfectly suitable for young and old, dino egg heads and the completely ignorant (like me). They've done this by having a simple control and select system that makes finding your way around a piece of cake. There's also a diverse selection of info available that will satisfy the casual observer and the more serious user. On top of this there's also a nifty funosaurus section for kids. Here they can paint all sorts of dinosaurs in all sorts of colours, try their hand at some Chinese puzzles (with two level settings) and for the really keen (and brave) there's the quiz. This can be played one or two player and is an excellent place to check out how much you really know and how much of the bombardment of facts actually stuck.



Optonica got some of the world's greatest Dinosaur artists to create the hoard of piccies that can be found on *Insight Dinosaur*. The result is, supposedly, some of the most realistic and lifelike images of their kind.

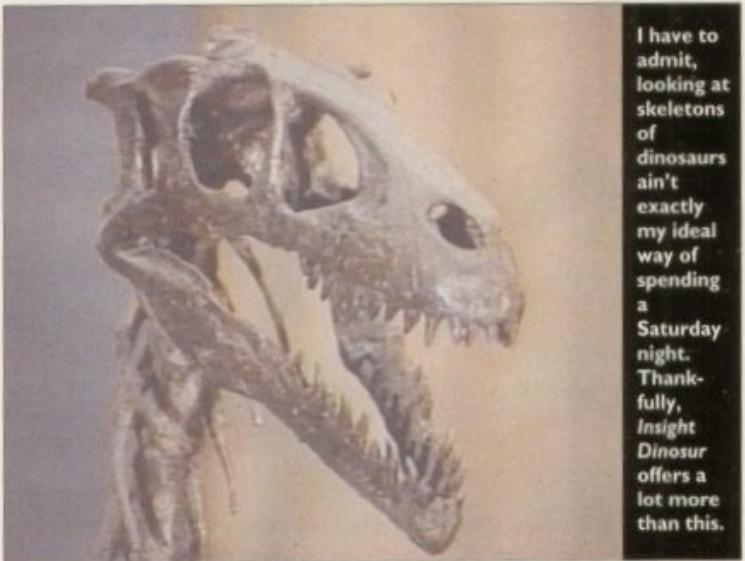
It has to be made clear that *Insight Dinosaur* is an excellent interactive learning tool, but not a game. Don't think for any minute this CD offers plenty of blast-em-up action, or anything like that, as it doesn't. It's an interesting, comprehensive exploration into the world of dinosaurs, but that's it. You've been told!

In summing up, *Insight Dinosaur* offers more than just boring text and a few pictures of fossils. It's a well presented and smart package that the programmers have crammed full with every tit bit of info you could imagine on dinosaurs. They've also made it fun and interesting and should have a broad base of appeal. So, if you want to know more about our unfortunate predecessors, then this is well worth buying, especially at such a reasonable price. ■ JE



Dinosaurid
How Dinosaurs
might have evolved

If this is how Dinosaurs might have evolved, all I can say is thank God they didn't. It's bad enough having to look at Miles everyday!



I have to admit, looking at skeletons of dinosaurs ain't exactly my ideal way of spending a Saturday night. Thankfully, *Insight Dinosaur* offers a lot more than this.

ANIMALS THAT BECAME EXTINCT AT THE SAME TIME AS THE DINOSAURS



Dinosaurs



Pterosaurs



Marine Reptiles



Marine Creatures with Shells



ANATOMY OF THE DINOSAUR



DESCENDANTS OF THE DINOSAUR ERA



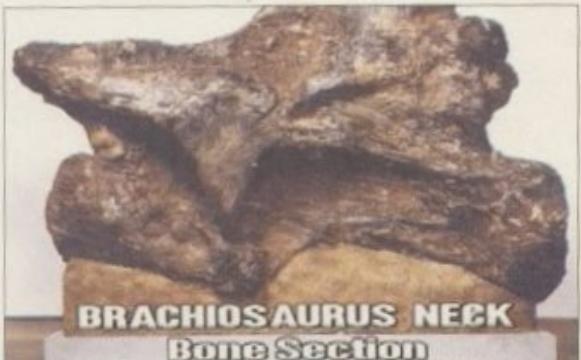
MOVEMENT & BEHAVIOUR



DIET & DIGESTION



ATTACK & DEFENCE



BRACHIOSAURUS NECK
Bone Section

Toe Bone of a Tyrannosaurus



"A well presented and smart package that the programmers have crammed full with every titbit of info you could imagine on dinosaurs"

SITES

TECHNIQUES

Insight Dinosaur covers every aspect of dinosaurs, including where their remains have been found, who found them and how they go about digging 'em up. Most of this info comes across via the drone of some bloke , but there's also plenty of piccies and film footage as well.

THE MANTELLS

OTHNIEL MARSH

EDWARD COPE

RICHARD OWEN

WILLIAM BUCKLAND

DRAGON DOCTORS

CHARLES STERNBERG

C.C. YOUNG

special offer

You've read the review, you've marvelled at the beautiful screenshots, you've even had a whiz through the exclusive demo on this month's cover CD. The only thing left to do is to own the this most essential of educational titles. *Insight : Dinosaurs* normally retails for £39.95, but Optonica, in association with CD32 Gamer are offering the package for just £29.99.

You can order your copy by sending a cheque or postal order the following address :
Optonica Ltd, 1 The Terrace, Lutterworth
Leics, LE17 4BA
Alternatively you can ring the credit card hotline which is 01455 558 282.
Your CD will be sent out by first class post within 24 hours of you placing your order.



Profile

OVERALL

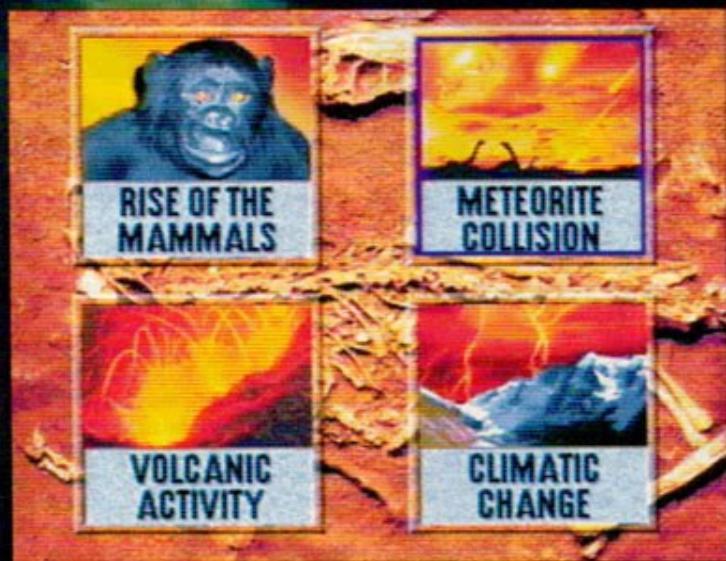
PROS: *Insight Dinosaur* is well presented, adopts an easy to use control system, but above all, is crammed to the max with info on literally every aspect of dinosaurs and their life. It's also retailing at a reasonable price.

CONS: It's really only for those who want to learn or use it to teach others about dinosaurs. Anybody after thrills, explosions and bombs is reading the wrong review.

85%

INSIGHT DINOSAURS

Optonica show off what its Interplay system can do with this tie-in with The Natural History Museum. Tony Dillon drags himself out of the swamp.



OK, so all the hype over *Jurassic Park* died a long time ago, but that doesn't stop dinosaurs from being interesting. This is obviously something that Optonica have realised, which is why they have pieced together such an excellent package as this one. I have to admit that I have always doubted the viability of encyclopedia on CD, but that could easily be because most of them just aren't any good. It's quite a nice surprise to come across a package like this one, that has obviously been thought through properly, with a lot of time and effort being spent on it, although it is a little weak in some places.

WHAT IS ON THE MENU?

Like any good encyclopedia, you begin with a main menu, and from there have to find your way to whatever you want. You can do this by simply browsing through the many 'pages' in the 'book' until you stumble across something that catches your eye, or you can go to the index and look up anything specific. The index takes the form of a scrolling list, and you can jump straight to any part of the book by clicking on the name. The control method is as simple as it



could be. Large, well drawn screens show you exactly what to expect, and all you need to do is click with the red joypad button on the option you want. If you want to return to a previous topic, or just skip the current screen, then clicking on the blue button takes you back through all your choices until you reach the main menu.

INFOMANIA

There is an absolute wealth of information on this CD, presented in a variety of different media. The bulk of the actual factual information is in easily-readable text files, but that's only part of the package. The entire thing is read by a Tom Baker soundalike, whose gravelly tones are just interesting enough to keep you listening, although the script

itself is enough to keep you interested anyway.

VIEWING FEST

The real beauty with this package, though, are the visuals. Using a combination of photographs, artists impressions, CDXL film and model animation/rendering, Optonica have managed to create a convincing enough portrayal of what life was actually like when the dinosaurs were alive. Some of the illustrations used are quite staggering, particularly the CDXL model animation, which has to be seen.

On the whole the presentation is incredible, but there are a few points where it all gets let down. On the CD32, a lot of the CDXL animations are blown up on screen, to create an 80% window, which looks blocky and nasty. Also, most of the 2D illustrations that have been poorly drawn and badly animated, which is a shame because they are overlaid on some spectacular backdrops. I can't help but feel disappointed at this large glitch on what is otherwise an incredi-



makes it all the more interesting.

So if you are interested in Dinosaurs at all, or would just like to spend a couple of hours educating yourself, I really can't think of any better way to do it. What an absolutely amazing package!

cu



OPTONICA £39.95

CD32 ONLY

OPTONICA, 1 THE TERRACE, HIGH STREET, LUTTERWORTH, LEICS LE17 4BA.
TEL: 0455 558282

EASE OF USE

As long as you can read you'll have no problem at all.

VALUE FOR MONEY

Forty quid seems a little steep but then you are getting a lot for your money.

EFFECTIVENESS

Superb presentation and easy access make finding out information fun!

FLEXIBILITY

You can look up anything you want, in any format you want, from any position.

INNOVATION

Encyclopedias on CD have been done before, but not this well.

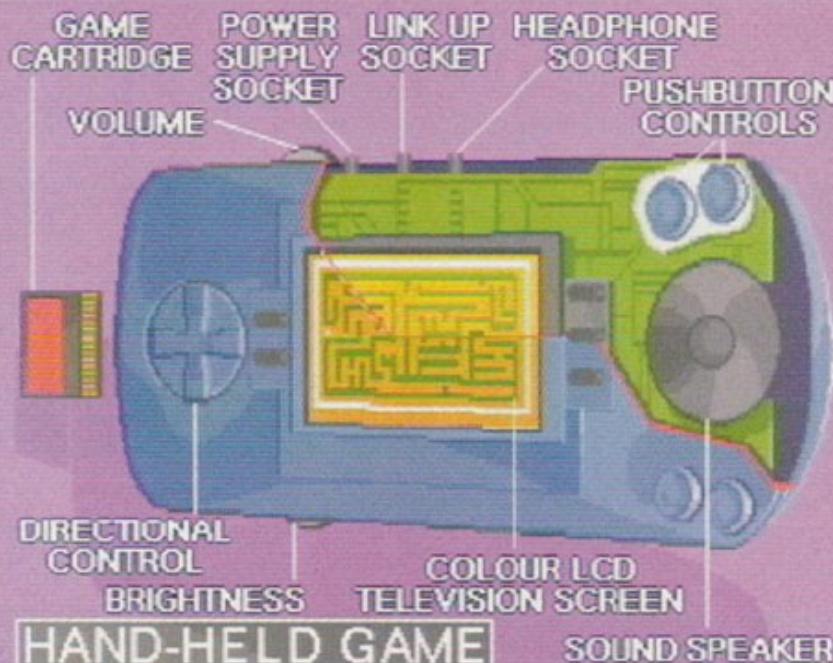


ble collection of images.

There can be no doubts at all as regards the accuracy of the information on the CD, as the whole thing has been created in conjunction with the Natural History Museum in London as part of their Dinosaurs exhibition. In a way, it's their seal of approval that

A very entertaining educational product.

OVERALL 91%



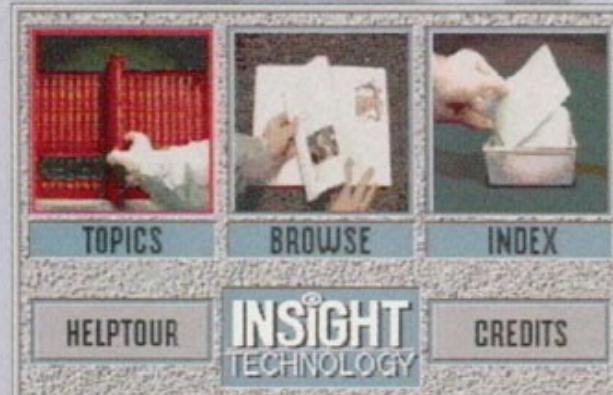
INSIGHT TECHNOLOGY

£33.99 - OPTONICA/COMMODORE - 0628 770088

» **M**ention multimedia to most people and they'll either look at you as if you've said a dirty word or just fall asleep as you speak [which happens a lot to our News Editor, Tony Dillon, funny enough - Ed]. It's not that multimedia is boring or anything, it's just that no one really seems to know what it is or what it's supposed to do.

For the record, multimedia is 'the integration of graphics, video, sound and text under the control of a computer in order to perform a specific task'. I know this because it's written in my computer dictionary, but it hardly makes the pulse quicken, does it?

However, where multimedia gets really interesting is the way in which sound, video, graphics and text are combined. Over the next few years, we're in for something of a revolution in the way that information is presented, and it's all thanks to our good friend multimedia. For instance, instead of pushing around a shopping trolley in a supermarket the size of Wembley Stadium, imagine being able to browse through a virtual reality shopping mall via your TV, picking out the goods and services you need at the click of a button.



Another application could be the interactive travel agent where a prospective holiday maker slots in a CD disc into their player, selects a choice of holiday destinations and settles back to watch an audio-visual presentation of each area. There could also be a number of more specific text menus listing anything from the best local clubs and pubs in which to swing your pants to details of where to find a childminder to take care of the kids while you have a good time.

Another area where multimedia could make a big impact is in education. There's nothing more boring than a book full of text, especially if the subject's something that's difficult to get to grips with in the first place. Realising the possibilities presented by Commodore's new CD32, Optonica have come up with a multimedia guide to the way things work. *Insight Technology*, the first in a series of titles, is a fascinating title which manages to combine video, audio and text to provide a truly exciting and informative technology reference disc.

Taking its lead from everyday objects, Optonica have set out to

VIDEO GAMES

The development of the electronic video game has been little short of an electronics revolution. Since the introduction of the first system for the home, PONG, an electronic tennis game invented in 1972, each new video



SPACE SHUTTLES

On the 12th April 1981 the very first space shuttle was launched, beginning a new era in space transport technology. The U.S.S. Columbia became the world's first reusable space vehicle. About the same size as a DC9



explain how each object works. From guns and video games to water-wheels, robots and helicopters, the disc is an intriguing look at technology at work. The choice of subjects is presented in an alphabetical list which can be scrolled through until the desired option is highlighted. Once you've decided on a topic that interests you, merely press a button on the control pad and the relevant entry will be displayed after a few seconds disc access.

Each entry consists of descriptive text, annotated diagrams and a number of digitised pictures. There's

also a 10 second narration accompanying each topic with some sequences including some primitive animations using colour cycling. Although the sound quality of the narration is not brilliant, it's easy to understand what's being said. My only complaint is that there's not enough of it! Picture quality is excellent and it's obvious that a great deal of care has been taken in the photography and subsequent scanning of each object.

A number of entries are also accompanied by video footage, complete with sound. Occupying roughly 1/8th of the screen, these last for approximately 20 to 30 seconds. Although it's nice to watch these additional clips, the choice is a little inappropriate at times, suggesting that Optonica weren't all that fussy in what they decided to include. For example, on a section about submarines, all you get to see are some dials and machinery which might be from the engine room or bridge of a submarine, but it's difficult to tell. Surely some exterior shots of a submarine plumbing the ocean depths would have been more appropriate in this instance!

Overall, Optonica's *Insight Technology* is an interesting addition to the growing numbers of CD32 releases. Although the number of topics isn't vast, there's enough here to stimulate both adults and children, and it's the ideal tool for learning how everyday objects work.

91%

VIDEO GAMES

The development of the electronic video game has been little short of an electronics revolution. Since the introduction of the first system for the home, PONG, an electronic tennis game invented in 1972, each new video



Le's start off on a positive note for a change. The music is great. Very good. Without sounding too pretentious (all right, it will, but what the hell), the in-game music veers between Tangerine Dream with the occasional burst of Stravinsky with bits of Psycho piled in for effect. And very moody it is too.

Until you realise that the music bears no relevance to the situations you find yourself in during the game. Shame, what with all that CD storage space sitting there just gagging to be used. The other downside to this is that you can find yourself wan-

LABYRINTH OF TIME

dering about a perfectly innocent mirror maze, when the sound wells up to almost Jaws-like proportions as you... ulp... turn a corner and... ulp, ulp... keep walking along a bit. It gives false clues and this interferes with the gameplay.

Universal takeover

Right, so what's the game about then? Quick rundown. You're on a subway station. You're wrenched into another world by Daedalus (the chap who created the maze that held the Minotaur). King Minos has forced him to build a trans-dimensional and trans-temporal maze in order to take over the universe.

For some unexplained reason, you are the only person who can save civilisation as we know it. You get the picture? From now on you



When you reach the end of a railway carriage you find this. Most strange.



You can't take that.

Labyrinth of Time looks good. In fact it looks great, and nowhere more so than in the Mirror Maze section of the game.

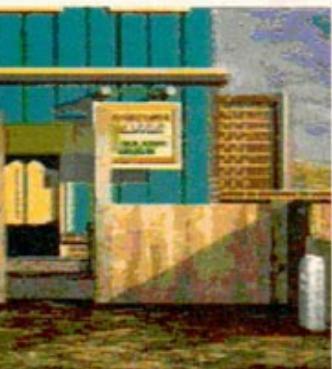


Entrance to a mirror maze, facing west

The game has a bizarre quality. This is what you find in a hotel corridor.

explore the maze, go to strange and diverse times and places, solve puzzles and generally attempt to save the known universe... and so on and so forth. It's pure Americana, student Americana with cultural references being dropped in willy-nilly.

So much for the plot, which I'm sure has been seen on Dr Who or Star Trek or Twilight Zone or Sesame Street. Now for the control system.



The Wild West section of *Labyrinth of Time*, in which you must solve puzzles and untangle webs of cryptic clues of a gun-slinging, cow-poking variety.

You can't always get what you want, as the Rolling Stones said in their rhythm and blues number about the Maze section of *Labyrinth of Time*.

LABYRINTH OF TIME



PROGRAMMERS

Bradley W Schenck,
Michal Todorovic

PUBLISHER

Electronic Arts 0753 549442

PRICE

£24.99

RELEASED

Out now



GRAPHICS



Stunning ray-traced images will grace your screen, but they slow down the gameplay.

SOUND



Wonderful in-game music is worth listening to on its own, but it does give false clues.

ADDICTION



Hard core adventurers will love this. If you're a normal human you won't bother.

PLAYABILITY



Too slow, and much too full of inconsistent details to be a must-buy CD32 game.

VERDICT

"Labyrinth of Time is a great-looking, superb-sounding, puzzle-filled game which will impress your mates. Until they realise that it's also too dated, too slow and far too clichéd."

69%

Tim Smith

Feature! Cd!

Big Nose rides again.
Doncha think that he's
the spitting image of
Ian, only better looking?



■ Titus

A long time ago us humans were pretty damn stupid if this disc's anything to go by (not a lot's changed if this office is anything to go by! - Ed). *Prehistorik*'s set long, long ago when man clubbed his prey to death to stay alive. This game's a tribute to his daring. Relive the joy of smacking dinosaurs, chimps and grizzly bears over the head with a big stick before noshing down on their fresh carcasses!

The idea of the game's to score points by collecting food. Everything you meet that moves is edible, this guy's not fussy! To see how well you're doing check out the food-meter on the screen. Try to fill this up as far as possible before completing a level, otherwise the message 'Not enough food' will send you back to re-do it. There's also a time limit, so while it's important to collect food, wasting too much time means losing a life. You only start with three so it's vital to complete the level within the limit.

The lay of the land

This land's overflowing with prey, making it a simple affair filling up your food-meter. It's also very easy to kill the animals you meet on your travels. As they walk up, just bash them on the bonce a couple of times, before jumping on them to finish them off. Nothing too difficult there.

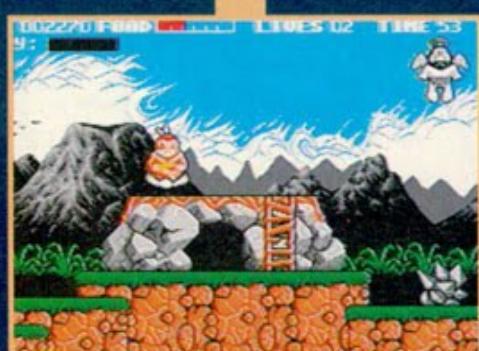
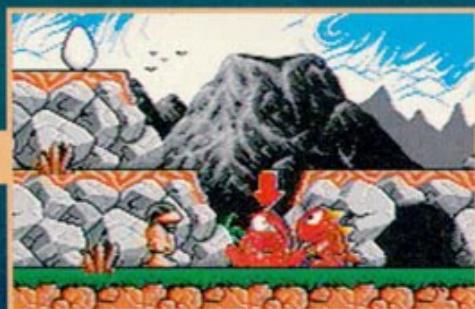
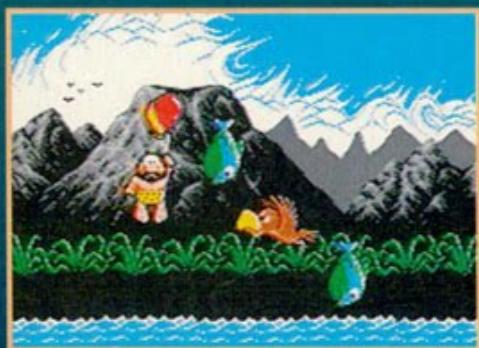
You find the most food in caves, but they're guarded by spiders who are impossible to kill. This means dodging them before they can get at you. Again this is not too demanding.

There are plenty of bonuses dotted around to aid your quest. These include bombs to knock out all the animals on the screen, a shield to make you invulnerable and the Cross of Life giving you an extra life. On top of these look out for the nifty little gadgets making your life a little bit easier. Those you come across are a trampoline for extra long jumps, balloons to rise above dodgy situations and an Alphaplane for longer flights.

Prehistorik's landscape looks really impressive. It's brightly coloured with some nice little touches such as birds flying by in the background. There are also some catchy little tunes and neat sound effects, adding to the atmosphere. However, this fails to compensate for the gameplay. You expect a lot more from a CD32 game — this disc looks dated and plays like a poor budget title.

There's some novel animation, smart graphics and amusing sound effects, yet the scrolling's very jerky making the game annoying to play after a very short space of time. Add to this monotonous action and you've got what's basically a boring game. Worth a look only if you're a dedicated platformer, but there's a lot better on offer for the CD32. There's also a wealth of better platformers on their way!

PREHISTORIK



amiga FORCE Rating!

■ A rather lame excuse for a platform game. It sure doesn't match up to today's standards.

49

LAST BUT NOT LEAST

The games reviewed here are but a small selection of CD-TV titles available for the CD32. There are plenty of others around worth considering as Christmas stocking-filler.

If you're into historical study, then the *Time Table of History* range is worth a look. Produced by Xiphias, they're described as 'reference for all ages', covering topics such as the media, business and politics. The only problem's they're a little dated, having been originally released way back in 1991.

Another educational CD-TV disc's *My Paint*, a fun drawing-designer for kids. It's a Saddleback Graphics game aimed at children aged three to 13, although our tips boy did have a problem with the game (we had to explain that you actually doodle on screen!).

That about wraps up our look at games initially conceived for the ill-fated CD-TV. If you wish to get any of the titles mentioned here, or want more information, contact Capri CD Distribution on 0628 891022. These guys will be happy to help you.

CD32



The game is about as different as can be from its floppy-based cousin. The board occupies more than 3x2 screens, and you are actually shown the dice rolling.



Questions are accompanied by a burst of sampled speech and a relevant digitised picture. Unfortunately, though, due to a rather odd bug, the two don't always go together!

TRIVIAL

So far, the CD medium hasn't really been exploited to the full. However, Domark's first foray into this exciting medium is a conversion of an old fave with a difference. Paul Rand gets trivial...

BORED GAME?

Since its creation in the mid-Eighties, Trivial Pursuit has become the post-winebar pastime of Thirtysomethings the world over. Why? Probably because everyone likes to be a smart-arse, and what better way to prove it than by correctly answering hordes of trivia questions? Which is exactly what you must do in Trivial Pursuit. Played on a round board (actually, it's square, but the actual playing area itself is circular) which is further split into numerous question boxes, each player must attempt to fill a plastic playing piece with different coloured segments and reach the middle of the board before the others. This is achieved by landing on one of the six special segment squares and correctly answering a poser pertaining to the appropriate category – you must have played it at some time...

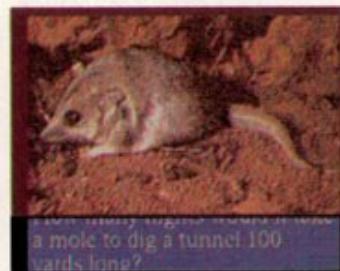
All well and good, but isn't it annoying when you roll in through the front door with the boys and girls, all of whom are champing at the bit for an hour or two of 'Triv', only to find that half the segments are missing and the dog has chewed up all the cards? Domark remedied this a few years back with home computer versions of *Trivial Pursuit* – and now they're set to sell untold amounts of CDTVs with a CD-based conversion of the game.

ENTER RUSSELL

No need to ask someone to hold the cards here: *Trivial Pursuit – The CDTV*



A number of familiar characters appear to ask questions, such as Einstein and Mae West.



Some questions even include sound effects for added realism.

CAST OF THOUSANDS

If there's one thing you can't help but notice about CD-based software, it's the amount of people involved in their production. *Trivial Pursuit* has a cast list as long as your arm, from programmers and animators to picture and sound providers and voice-over artists. Comedianne and impersonator Kate Robbins (who you will probably have heard supplying the voice of Fergie on *Spitting Image*) does a fairly mean impression of Mae West in the game, while Carry On actor and star of *Give Us A Clue* (wow, really big-time!), Patrick Mower, supplied the voices of the other characters. Mind you, quite what Mr Mower was thinking of when he did the voice of Adonis we don't know – he's got a Cockney accent in *Trivial Pursuit*!



'Cheeses' are what *Trivial Pursuit* is all about, and whenever you answer a prize question correctly the normally sarcastic Russell applauds appropriately.



As in the original computer game, cheaters can still opt to be deceitful...



Between the two CDs, there are over 2000 questions awaiting all you smart-arses. In addition, the added speech and pictures really add to the party atmosphere when there are a number of players.

PRESENTATION

Thanks to the power of CDTV, the player isn't just treated to a dull title screen and a snatch of ropey music! On loading, the CD grinds into action with a full-frontal assault on the senses, taking the player through an animated cartoon representation of all six different categories, from History – in which your character just escapes being beheaded by a Roman soldier – to Entertainment – in which you're grabbed by King Kong and carried up to the top of the Empire State Building. The definition of the graphics isn't too hot, but the overall effect, coupled with a stunning CD soundtrack, is the business!



According to Domark, several data CDs are also on the cards.

PURSUIT

Version has its own built-in Master of Ceremonies, called Russell. He's an odd-looking bird with a distinctly plummy voice – yes, he talks – who will be your guide right to the end of the game. Russell's rustled together a few of his friends, too, to read out the questions. And what a black book this feller must have! Albert Einstein (Science), Mae West (Entertainment), Adonis (Sport), Napoleon Bonaparte (History), William Shakespeare (Art and Literature), and Christopher Columbus (Geography) are all on hand with questions at the ready and quips in abundance.

All the customary rules are there, with the player rolling the dice and moving the amount of squares shown. In the likely event of landing on a normal question square, a poser will be given, which must be answered within a strict time-limit. Alternatively, land on a square with a dice icon and you are allowed a free throw. And, if you land on a segment square and correctly answer the trivia question, the appropriate wedge becomes yours. Collect all six and make it to the centre circle, answer a random question and you win the game!

It is in the question-answering where *Trivial Pursuit* differs radically to other computer boardgames. There's no need to choose from a list of possible answers – simply shout out what you believe to be the correct answer and then select the Reveal icon. The computer will then tell you the answer and ask you if that was the one you chose, at which point you select either Yes or No depending upon whether or not you were right. This unique method allows for an ability never before possible in this genre – cheating. There's no need

to worry about running out of questions, either: *Trivial Pursuit* is supplied on two CDs, each containing 1000 questions, with extra question discs already in the pipeline.

MEMORY MAN

With 550Mb of available memory on each CD, the programmers of *Trivial Pursuit* have been able to run riot in the graphics and sound department. The first thing you notice is the animation of your host Russell and his question-asking cohorts. Although quite basic, each character comes to life on screen thanks to the many frames of movement. What is technically very clever is the way in which their mouths move in sync with the spoken word – and there is a lot of speech in this game. How much? Try every question, every answer, and God knows how much more. Russell is never afraid to rattle on about something, whether it be informing the player to roll the dice, or making some scathing comment on the amount scored after the roll. And, on introducing each of the question-masters he'll spend a good half-minute or so indulging in mindless conversation with them before getting back to the proceedings. Each piece of trivia has a picture attached to it, and some even have a piece of music or snippet of running commentary, too.

WHAT A LOOKER

Trivial Pursuit is a title that has obviously had an enormous amount of time spent on it – and it shows. If Commodore are on the lookout for a title that shows off their machine, this is the one. The game isn't without its faults, though. The most annoying is while the screen is showing one ques-

tion, the CD player occasionally zips off and chooses an incorrect piece of speech to go with it – imagine my surprise when, on hearing my CDTV ask me how many teeth does a human have, I looked at the question which was enquiring as to the colour of Yak's milk! Other little gripes include some rather nasty flicker on the digitised graphic screens, not to mention the disconcerting and, eventually, agonising click which blasts out whenever a new block of speech is loaded. And there's a totally unforgivable omission – while Domark have stuffed the front end full of humourous graphics and sound, come the end of the game there's not even a hint of congratulations to the winner, just deathly silence and a frozen screen.

CD HUMOUR

Having said that, *Trivial Pursuit* is so packed with humour, especially in the form of the cynical Russell and his constant stream of witty, if slightly cheeky, one-liners (especially if you aren't very good at the game – he'll let you know in no uncertain terms), that all the problems, which would be extremely off-putting on other titles, pale into insignificance. Obviously, with the method of answer selection employed, this is a game that is all but impossible to play on your own, but then again so is the real thing. *Trivial Pursuit* will wow your family and friends. It has all the features and content that we all expect from a decent CD-based title – none of your direct ports, here! – and with so many questions on the CDs, its longevity is ensured. And just think, no longer will you have to suffer the indignation of scrabbling around the floor, looking for the missing blue segment!



buyers' guide

release date	Out Now
genre:	Trivia game
team:	In-House
controls:	Infra-red/Mouse
numbers of disks:	2 CDs
number of players:	6

DOMARK £49.99

Just what the CDTV ordered – this is excellent fun...

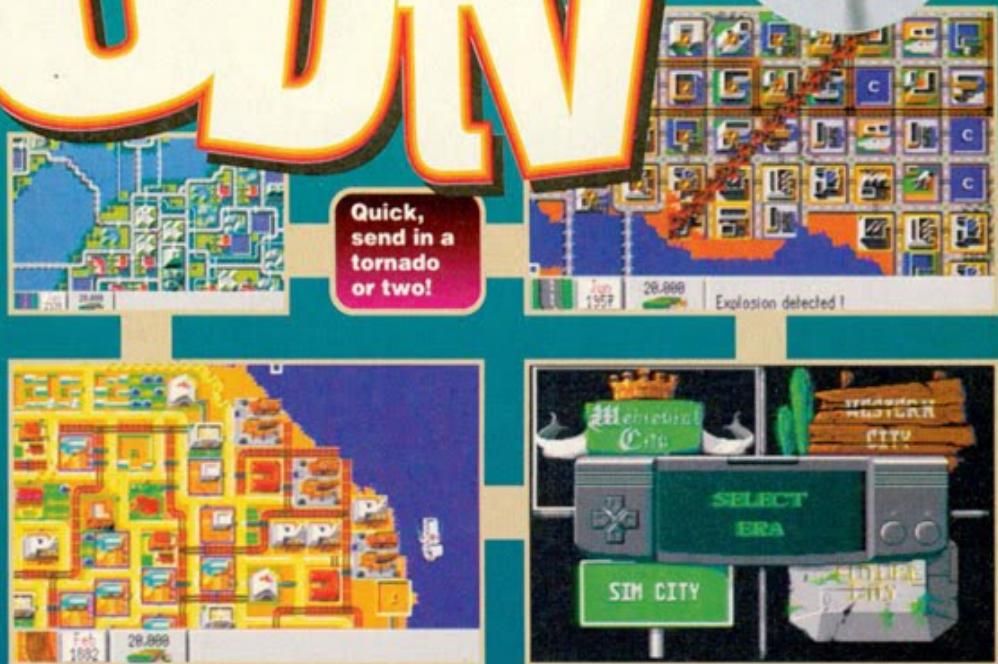
GRAPHICS	90%
SOUND	93%
LASTABILITY	83%
PLAYABILITY	82%

OVERALL 86%

Feature!

CD32 CD!

Remember Commodore's CD-TV? Overpriced, underpowered and ill-fated the machine died a sad death. Now, the advent of the CD32 gives the old CD-TV games a new lease of life. So we thought we'd take a look at a sample of its good, bad and, er, ugly games!



SIM CITY

**amiga
FORCE
Fave!**

Infogrames

This is one of the best simulation programmes produced on any system. The idea was simple — take control of every aspect of the running of a city — and proved to be a winner. So it's not surprising we reckon *Sim City*'s the best of the CD-TV bunch.

To begin the game, you've a huge choice of scenarios. First, select to create a totally new city or play one of the existing cities provided by the game. Within each of these options is a host of city-designs and time periods to choose from. Each presents contrasting problems and disasters.

We built this city...

If you opt to begin from scratch with a new city, the first step's choosing an era in which to build. Your choice is between Medieval, Western, Actual or Future. Obviously control functions such as power supply and transport are different in each era. A water-wheel in the Medieval world becomes a

nuclear reactor in the present day; while a muddy dirt-track in the Wild West becomes a huge motorway in the future.

Having selected the setting, choose the difficulty level, either easy, medium or hard. No guessing which one it's imperative to start on if you want to make any kind of decent progress. In a game of this magnitude decent progress constitutes at least 30 years of hard graft.

The other option's to attempt to overcome a crisis in one of the computer-generated cities. These are again from different time settings and ask you to solve social dilemmas such as pollution, crime and overcrowding. It's probably best to wait a while before attempting these scenarios. If you aren't adept at dealing with a few little crises when building a new city, you have no chance here!

On rock and roll!

The real business is, of course, controlling the growth of the town, while trying to accommodate the population's needs. Once into the construction mode, most of the screen shows a display of the terrain on which you can build your city. Brown areas represent open land, green woodland and blue — the waterways. Obviously houses can't be built on the water, although roads and railways can.

The object's to try and create the perfect environment for all aspects of life. This means taking care where you build different constructions. It's no good putting housing next to a power station, or building a commercial development

miles away from the nearest residential area.

Basically it's a question of common sense which is what makes this such a brilliant game! No two people go about it in the same way, but this doesn't mean one's wrong. Expect plenty of arguments if you play in a group!

Building a huge city isn't cheap, so money has to be raised to cover costs, as well as the maintenance of the transport system and the police and fire services. The only way to get some cash is taxing your city's good citizens. This is a delicate balancing act; raise taxes too much and people leave the city, too little and you go without. It's a fine line to walk, but the rewards are surplus cash to build airports, seaports and sports stadiums.

If things aren't exciting enough for you there are plenty of natural disasters to choose from to spice things up. These include a tornado, air crash and attack by a mad monster! Once you've selected one of these you need to use the emergency services to sort out the consequences, so it's advisable to build police and fire stations before you opt for a disaster!

Sim City's a brilliant game enhanced on the CD with excellent music. Buy this and say goodbye to your spare time for many months to come!

**amiga
FORCE Rating!**

An excellent game, utilising the power of the CD well. Just check out the music!

93

WRATH OF THE DEMON £29.99

READYSOFT



This is basically your European beat-em-up arcade romp extravaganza. So, in other words, it's just an Amiga game; and again, not a terribly good one. It hasn't even got a hi-fi soundtrack, but it boasts (literally, on the cover) over 3Mb of graphics data, which is mainly a decent intro animation and some quite nice between-level links. But over 3Mb of data on a disk that could hold 500 Mb is not that impressive.

The game, if you haven't seen it, has decent graphics but is otherwise uninspired. Hack-n-slash on CD is made tricky with the remote control, because however much you press the buttons, you get dead anyway. This isn't a bad Amiga game; it's just a pretty average one. As a CD it's a disappointment.

Verdic 32%
FORMAT
BATTLESTORM

£29.99 TITUS



Surprise, surprise, it's an Amiga arcade game. Yet more massive use of the potential of CD-ROM – I don't think. This is simply an omni-directional kind of shoot-em-up that is in the mould of something like Psygnosis' recent *Amnios*. It's not even a particularly good one, and with absolutely no concessions at all to the medium of CD it has to remain a disappointment.

Should we even bother describing the gameplay? Well, you whiz around the screen shooting things and collecting other things. The graphics are rather nice, there's two different control methods and a bunch of levels. And that's about yer lot. Mind you, it comes on a very pretty picture CD.

Verdic 37%
FORMAT
MIND RUN

£29.99 CREALUDE



Weirdness has always been something of a trademark of French games and though we've never actually seen this one on the Amiga over here I have little doubt that it was actually an Amiga game originally.

It's a bunch of very peculiar little tests of mental agility, quite similar to an animated version of those IQ tests that you see in newspaper adverts for MENSA.

One nice thing about this set of mind teasers is that you can choose to play in a number of languages, so it's a great way to learn the Spanish for "Touch the two pictures that match and are joined by lines". Presentation involves some very bizarre Dali-esque graphics and weird synthesiser sound effects. But is it fun? Only for a while.

Verdic 32%
FORMAT
OUND OF THE BASKERVILLES

£29.99 ON-LINE

This is an interactive murder mystery, apparently. In actual fact it's more of an interactive storybook, in which the story of Sherlock Holmes' most famous case is broken down into small chunks. It's based on an idea for presenting a murder mystery developed by a book publisher a number of years ago. You are given the book as a kind of crime file and you are encouraged to read it through event-by-event and try to develop your own idea of the solution.

On CD, this means you must navigate your way through huge wedges of on-screen text and look at the odd digitised photograph. It's a terrible way of reading a book and it does not add any real element of interactive enjoyment. On top of which, the presentation is dire apart from the employing of a professional narrator. Buy the book.



From this main screen you can choose to listen to a narration or read reams of text. Wow!

Verdic 12%
FORMAT
PSYCHO KILLER

£29.99 ON-LINE

On-Line are one of the few visionaries to realise that they can use the Amiga to develop real interactive movies. Sadly, they have come up with an interactive home video. The whole thing is shot as if it were a movie using still photographs which are then digitised.

A narrator unfolds the story as you navigate around the Home Counties trying not to get killed. Generally it's simply a matter of clicking to go right or left, but occasionally you have to react quickly, moving the pointer and clicking to avoid certain death and a restart.

This sort of 'you died this time but you'll get it right next time' gameplay is poor. And who wants to play a spotty herbert from the suburbs of London who drives a Vauxhall Chevette anyway? Not me. (So what car is it you drive? – Prod Ed)



Typical gameplay: you're about to crash. As the scene flicks, you must click on the brake pedal.

Verdic 13%
FORMAT
CHAOS IN ANDROMEDA

£29.99 ON-LINE



Your mission, should you decide to accept it, is to have your brain wiped and be a CIA goon.



Arriving on a planet, you must wander around in the small screen and... erm... do things.

Again, this is an Amiga game. It's a large adventure game created by a Danish team and as such, it has something of an enthusiast feel to it: it's very reminiscent of a Public Domain-style game, but on a major scale. Rather like Tangerine Dream music, if you do like this sort of thing and have the patience to get into it, it will no doubt reward you by absorbing you into its own little world.

It's a straightforward enough graphic adventure that employs an overhead map view. You have to move your character around the landscape and into buildings and see who or what you encounter.

Messages and conversations are printed in a message box below the main view. This game, though, is not really going to appeal to anyone who is not already a bit of a fan of the adventure gaming genre, and even then it's not an outstanding example of this style of game.

Verdic 33%
FORMAT

THE CASE OF THE CAUTIOUS CONDOR

£34.99 TIGER MEDIA



Before you can play the game, you need to watch the Prologue, a gorgeous televised graphic novel which fills in all the background. Towards the end, you learn that one of the passengers on the aeroplane with you was responsible for this murder:



In the Intro, you are introduced to the private eye you later play: out of whisky, cigarettes and luck.



The Prologue runs through your history: as a pilot ace in WW1, you saved the life of the Condor's millionaire owner.

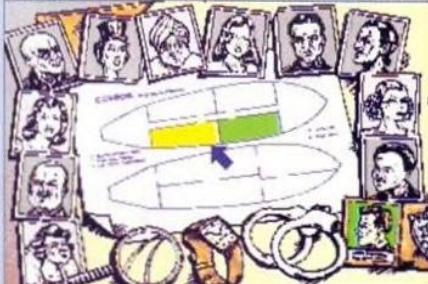
In the first few seconds of watching this, you are easily convinced that it's a major achievement. The intro, with its bold, colourful cartoon graphics and a real Sam Spade private dick introducing himself on the audio soundtrack, is impressive enough.

But what happens before the game starts makes the intro look minimal. You must fill in all the background and set the scenario, so you watch the Prologue. This is a full 10 minutes of what is, in effect, a graphic novel, presented beautifully in the television medium with excellent narration and soundtrack.

So far, so very, very excellent. And now it's time to play the game. You've been invited on board a luxury air cruiser, the Condor, by a wealthy eccentric in the Howard Hughes mould. Your fellow passengers are all suspects in a murder, lured there by your host. But you have only 30 minutes until the flight is over and you must find the killer before the plane lands...

Sadly, the overwhelming excellence of the presentation is let down by the gameplay. To pick up clues to the identity of the murderer, you must wander around the 10 or so rooms talking to the suspects, listening in on their conversations and searching for evidence. To nail the killer you'll need to have established motive, means and opportunity.

What this boils down to is clicking on the



The sadly limited gameplay involves moving from room to room, picking up clues and talking to the suspects.

DEFENDER OF THE CROWN

£29.99 CINEMAWARE



This game features some very attractive graphics, but this is a fair example of the joystick-wagging sub-games. Bang that button, boys!

This is a prime example of an Amiga game that has been ported over to CD-ROM. It's also a very old Amiga game. As you would expect, the main enhancement is a hi-fi audio soundtrack, which means that the very pretty and pleasant Amiga graphics which made a name for this one when it first appeared some four years ago are enhanced by some very pretty and pleasant music done on a synthesiser and sounding just about medieval enough to suit the atmosphere of the game.

There's also some audio by an actor as the narrator who comments on your progress through the game. This is the voice of an American pretending to be English and sounds like a cross between an insurance salesman and an Australian.

The game itself is a simple strategy game set in Merrie England of the medieval knights and jousts period. It's based on building up the strength of your army to acquire land and take castles until the whole of England falls under

mon you want to visit, clicking on the search icon occasionally and making sure you're in the right eavesdropping spot at the right time to watch more excellent movie-like scenes. In practise, this is pathetically simple, so it's made into a challenge by the addition of a tight time limit – five minutes – and the random element of finding the right people at the right time to hear the right things.

You'll play time and time again, learning more each time you do, until finally you can piece the puzzle together within the time limit. Unfortunately, this sort of frustration-breeds-eventual-success gameplay is far too unsophisticated and ultimately unrewarding.

In terms of presentation, *Cougar* authors Tiger Media have nothing to learn from anyone. This disc is worth buying just as a vaguely interactive graphic novel – it looks and sounds gorgeous – and it's the first true CD game there is. It's also quite enjoyable. But in terms of gameplay, the authors have a lot to learn from games like Delphine's *Cruise for a Corpse*, which is a very similar concept.

Verdic 79%



is described in detail when you arrive. While waiting for a suspect, have a quick search round.

your way. Battles are just commentaries in which you are told whether you've won or lost, with only the simplest of decision-taking involved and no real information on which to base decisions.

This is interspersed with joystick-wagging sessions (taking part in a joust, swordfighting while taking a castle, etc) which on CDTV become furious Button A pressing sessions and on Amiga CD-ROM will be mouse-button bashing sessions.

To be honest though, there's not an awful lot of game here, though what there is is enjoyable enough. Some of the static screens with CD music are delightful, but even these get annoying after a while as they hold up the gameplay. But this does come over as a professional CD presentation that bit extra than the Amiga version.

Verdic 48%

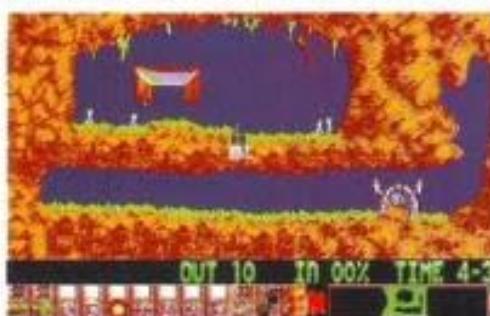
LEMMINGS

£34.99 PSYGNOSIS

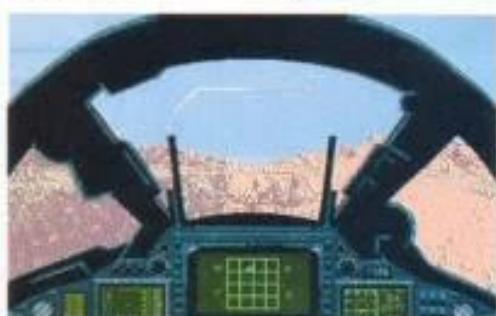
We won't even bother describing this game to you, because if you don't know what it's about by now you must have been spending the last year dead for tax reasons. Suffice to say it's a straight port of the Amiga version, which causes one small problem: control. Getting the pointer swiftly across the screen to reach the 'Floater' icon before that lemming takes a leap into space, or positioning it accu-

rately enough to start building a bridge just on the lip of that chasm, is made more difficult than it needs to be by the remote control's lack of responsiveness. That aside, this is still a marvellous game on any format and is good enough to live in anyone's living room.

Verdic 75%



Look familiar? Oh, come on! You can't be an Amiga Format reader and not ever seen Lemmings before!



Lemmings is accompanied by the stunning but fairly pointless Planetside demo. Will Psygnosis ever develop it into a game?

SNOOPY: THE CASE OF THE MISSING BLANKET

£34.99 THE EDGE

Surprise of all surprises, what we have here is an old Amiga game enhanced by the addition of a hi-fi soundtrack. It's quite a pleasant soundtrack, in the mode of the music used on the Snoopy TV cartoons.

The game itself is terribly simple indeed, aimed at younger children. You control Snoopy as he wanders across screen after screen, trying to locate objects and use them in an appropriate way in order to progress. Eventually he will find Linus's famous missing blanket.

On the way to this discovery, though, he'll probably get rather bored. The graphics are colourful and pleasant enough and the animations are really quite good, but the simple puzzles and the timing problems which make up the gameplay just don't add enough playing interest.

Verdic 36%

Here's a fine example of the gameplay involved in this game. Snoopy picks up his bowl...



...and delivers it to Charlie Brown. The whole game just involves finding objects and working out what you should do with them.



SIM CITY

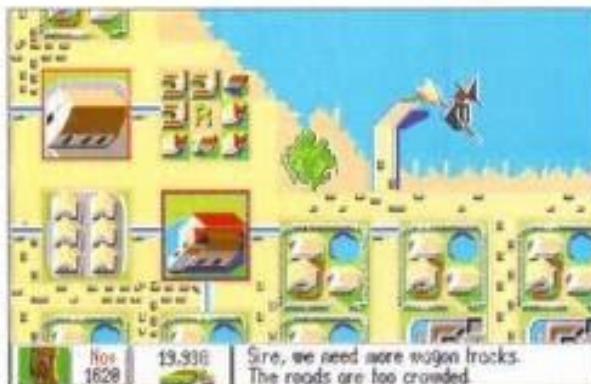
£29.99 INFOGRAPHICS

Another Amiga game enhanced, but a very excellent Amiga game with some well-thought-out enhancements. The in-game music is full hi-fi audio, and was recorded by a rock band in a studio, and it's very good.

The game has been tweaked in places with the addition of a fancy zoom mode, plus a number of modifications to the structure along with some new scenarios that weren't on the Amiga version.

This is a classic strategy game in which you build a city by catering for the needs of its inhabitants. The better the municipal facilities that you provide the citizens, the more popular you will become and the more likely your chances of being re-elected as mayor. And if you can handle such natural disasters as Godzilla stomping on your city, all the better. Much like Lemmings, this really is a top-notch Amiga game that deserves to come into the living room.

Verdic 75%



In this redeveloped version of an excellent game, you can choose to play in different time zones. This is medieval, and we're being attacked by a wizl!



You keep your townspeople happy by building them facilities.



Zoomed out, you can see where your people are having problems.

THE DISCIS CHILDREN'S BOOK SERIES

£34.99 AND £39.99 DISCIS

This is a delightful collection of popular children's picture books brought to the television. Each one is operated in the same way, so in effect we'll deal with them as one collection.

The series is biased towards American books, with American narrators and American spelling, but since the majority of children's television cartoons are now American-made, that would only be a problem for the fussiest of English parents. It also gives rise to an interesting feature of the series, in that every book can be read in Spanish, America's second language, if you so wish.

The format is the same for each book. The book is spread open in front of you, with the illustrations from the original printed versions reproduced in digitised form. And they're nicely digitised, too. The words are printed in large, friendly text, with never too much to read on one page. And there's music playing throughout, too, which makes the whole experience very like watching *Jackanory*.

To move through the book, you click on the dog-eared bottom-right corner to turn the page or move a slider at the right-hand side. If you just want to listen to the story, you click on the little loudspeaker icon at the start of each paragraph and the narrator will read, turning the pages, to the end of the story. Each sentence is highlighted while it is read.

The interactive element is that you can click on any word on the page to hear it spoken, or hold down the button to hear an 'in context' description of the word. You can also click on any part of the picture and the word that describes whatever you've clicked on will appear on the screen and be spoken.

The only mild problems with the control system is that the CDTV tends not to take input when it's doing something else, such as loading the next piece of music or narration. This means that sometimes you click and nothing will happen; which could be just a bit too fussy for impatient little fingers.

The CD books are just as likely to become treasured possessions for younger children as 'real' books do already. They're nicely presented to a very high professional standard. Of course, different stories will be preferred by different people according to the subject matter - we've tried to give you an idea of which we preferred and why below.

All in all, the only question you have to ask yourself is do you really want to pay that much more for a CD than a book? Kids' books have very few words, which translates into very few minutes of CD-watching, which makes them expensive at only one story per disc.

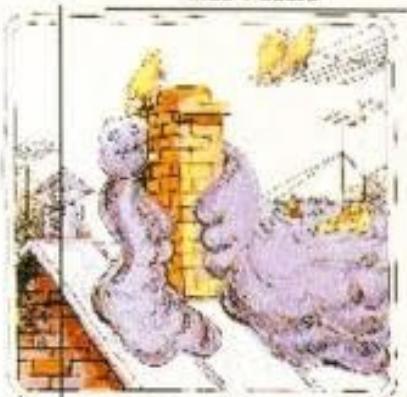
Books have a "feel" as objects which is entirely their own and many parents would prefer to get their kids away from the telly to read. On the other hand, if it keeps them quiet and encourages the kids of the video age to pay attention to words, it has to be good. Your decision. It's the price that really makes it seem unviable.

Verdict: **70%**

MUD PUDDLE

It's an American narration of a story by a Canadian. It's a story kids can empathise with about a young girl who keeps putting on clean clothes, but every time she goes out she gets jumped on by a puddle of mud. Sweet!

¶ The sand box was next to the house and hiding up on top of the house there was a mud puddle.

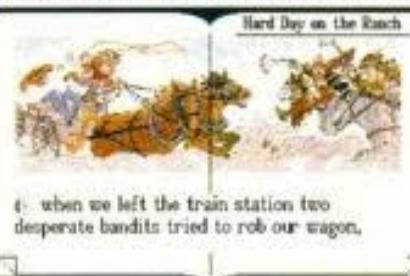
Mud Puddle**CINDERELLA**

and mirrors so large that they could see themselves from head to toe,
¶ But the poor girl had only a cold, dark room in the attic,

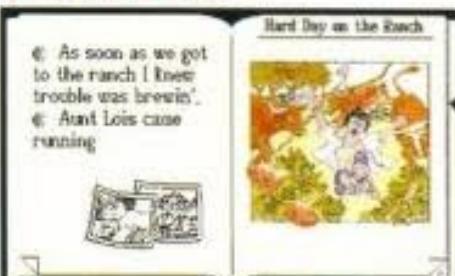


¶ They all jumped up at once behind the coach and clung close together.

The old standard fairytale, in a simplified modern-language version with American narration. Somehow the pictures of the characters seem very American and the story loses some of its antique charm.

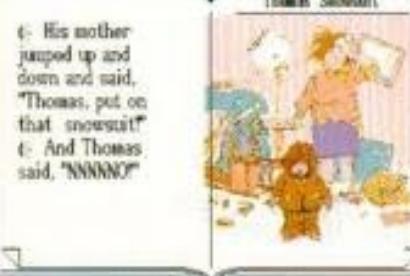
A LONG HARD DAY ON THE RANCH

¶ When we left the train station two desperate bandits tried to rob our wagon.

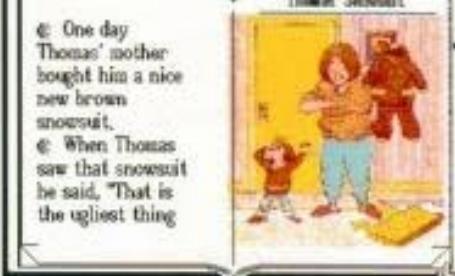


¶ As soon as we got to the ranch I knew trouble was brewin'.
¶ Aunt Lois came running

An amusing little tale narrated from first person by a young lad who imagines he's spending a day full of adventures on the ranch, whereas the reality is more mundane. Pleasantly amusing.

THOMAS' SNOWSUIT

¶ His mother jumped up and down and said, "Thomas, put on that snowsuit!"
¶ And Thomas said, "NNNNNO"

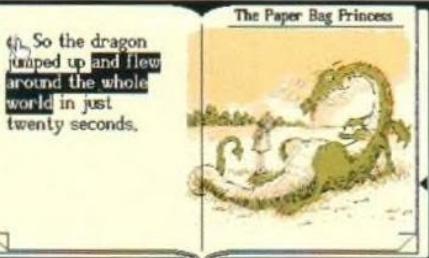
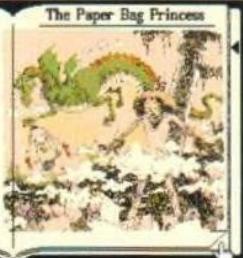


¶ One day Thomas' mother bought him a nice new brown snowsuit.
¶ When Thomas saw that snowsuit he said, "That is the ugliest thing

Thomas really does not want to wear his snowsuit, and ends up in all sorts of tangles as a result. Kids will identify with the foot-stomping refusals to cathartic effect. Americanishness intrudes slightly.

THE PAPER BAG PRINCESS

Unfortunately, a dragon smashed her castle, burned all her clothes with his fiery breath, and carried off Prince Ronald.



Excellent anti-sexist tale of a young princess who is bereft of her nice clothes and nice prince, and leaves to assert herself by outwitting a strong but very stupid male dragon. Delightful.

HEATHER HITS HER FIRST HOME RUN

Heather
why her fly balls were always caught, especially because the fielders seemed to drop just about every other fly ball.



Heather
Heather felt a little tear in each of her eyes.
They tickled her face when they dripped down her chin.
She began to smile.



Definitely American story about the lass Heather trying to succeed in a bizarre baseball variant. Lots of success-ethic underlying this one: a little bit of indoctrination into the American dream.

MOVING GIVES ME A STOMACH ACHE

Moving
I think I have a stomach ache because we're moving today.



Moving
When I woke up we were at the new house.
It was sunny.
Maybe the lonely new house was smiling to see us.



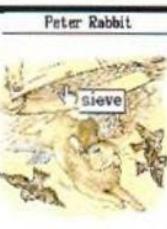
Enjoyable story of a young lad reluctantly packing to move house. Plenty of identification with a young boy's quirks (like keeping everything under the bed) but a slight lean towards that irritating American precociousness.

THE TALE OF PETER RABBIT

And then, feeling rather sick, he went to look for some parsley.



Peter Rabbit
Mr. McGregor came up with a sieve, which he intended to pop upon the top of Peter; but Peter wriggled out just in time, leaving his jacket behind him.



The Beatrix Potter classic narrated, thank goodness, by an Englishwoman. Even though the digitised graphics are of excellent quality, you can't help but feel they're that much nicer in print.

THE TALE OF BENJAMIN BUNNY

Benjamin Bunny
Peter was sitting by himself.
He looked poorly, and was dressed in a red cotton pocket handkerchief.



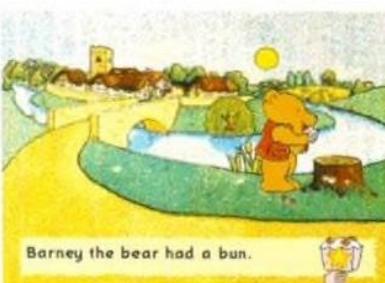
Benjamin Bunny
That wood was full of rabbit holes; and in the neatest sandiest hole of all, lived Benjamin's aunt and his cousins - Flopsy, Mopsy, Cotton-tail and Peter.



Slightly less well-known Potter tale. Some narration and presentation, same slight qualms. There's something so nice about these little pocket-sized hardbacks, isn't there?

A BUN FOR BARNEY

£34.99 BBC MULTIMEDIA



Barney the bear had a bun.



This is a combination of a storybook and an exploration game. The story of Barney the Bear and his iced bun with cherries on is narrated by ex-Doctor Who Tom Baker and features gorgeous graphics and animation.

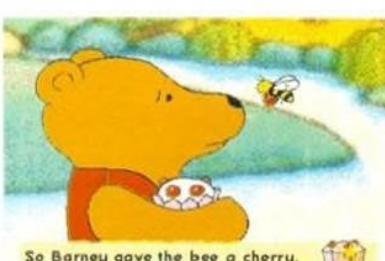
If you watch it straight through, the whole thing will last about 15 minutes, a reasonable chunk of which, it has to be said, will be made up of waiting for the next screen to appear, but what it lacks in Amiga programming finesse, it makes up in multimedia presentation.

But you're not really supposed to just sit back and watch. As you move the pointer around the screen it changes to a magic wand over certain points. Press the button over one of these points, and something surprising happens - the frog leaps, the weeping willow weeps or the bunnies do a dance. And at any time, you can click on the words on the screen to hear the individual words spoken.

It's a lovely storybook in itself, but the interactive element adds immensely to it. That's mainly because the things that happen when you click on something are so delightful. I can see a kid exploring this and cries of "Come and see this!" ringing through the house regularly.

It's lovely. But it is a bit expensive.

Verdict 79%



So Barney gave the bee a cherry.



Click on the words, and Tom Baker will speak them. Click on the bee and he loops the loop!



"Oh well," he said with a sigh, "an iced currant bun with four cherries on is better than a bun with none."

Click on the rushes and from behind them appears a troupe of covorting bunny rabbits. Aaaah...

JAPAN WORLD

£49.99 GLOBAL LEARNING SYSTEMS



Look daunting? Don't worry, the alphabet is easy to learn using this program.



The vocabulary exercises teach pronunciation, so at least you won't starve!



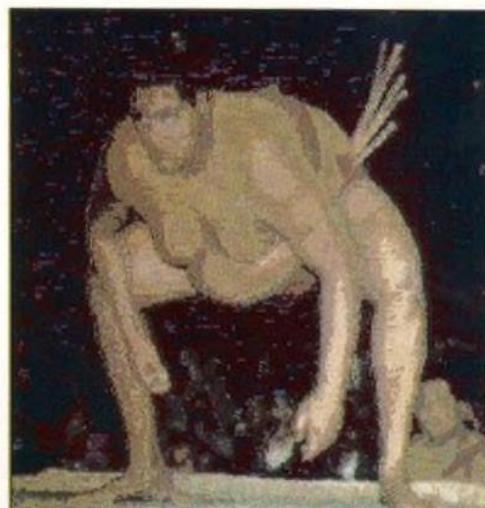
There is even a lesson on techniques and etiquette for using chopsticks.

One of the most useful aspects of Multimedia is the ability to create a totally interactive method for teaching languages. Usually language courses rely on a combination of books and audio tapes, but this requires you to be able to keep up with the tapes while you are reading. Of course, you can pause and rewind the tape when you drop behind, but it's much more helpful to have everything synchronised to begin with.

Japan World presents just such a package, combining written word and visual information with sound to provide a comprehensive teaching guide that moves at your own pace. The lessons are split into sections covering various elements of Japanese life, including food and drink, culture, religion, shopping, geography and work. Along with background information on each subject (featuring lots of pictures), there are language lessons complete with exercises in the form of puzzles. This allows you to test yourself after each lesson by both reading the on-screen text and listening to the recorded voices. There are even lessons on writing Japanese characters, ranging from the history of written Japanese through to the modern day. The sound and vision work extremely well on this section in particular, showing the various characters along with their pronunciation, followed by examples and tests to allow you to grasp, very quickly, one of the most complex areas of Japanese – the Katakana alphabet.

The background information is as good as any other Japanese teaching course you can buy, with information on virtually all elements of Japanese life, backed up with lots of pictures and animations to illustrate the lessons. The recorded Japanese has been spoken by a native, so you actually pick up the proper pronunciation, a point which has let many training courses down in the past. This combination of in-depth lessons and well designed presentation goes to make *Japan World* a comprehensive and extremely useful teaching tool.

Verdict 89%



Well, there had to be a Sumo wrestler in there somewhere!



Just in case you didn't know where it was, this map points out the positions of Japan and its surrounding islands.

FUN SCHOOL 3: UNDER 5S

£24.99 EUROPRESS SOFTWARE

Straight Amiga port, this: no enhancements at all. It's a collection of six little games designed to teach basic reading, comprehension and maths skills to preschool children. The games involve: picking out the capital letter that matches the lower-case letter on the screen; choosing a word (hop, sit, read etc) to make Teddy do the action; counting a number of objects; connecting a word with a picture of the object; matching pairs of shapes; and colouring in a farming scene.

It's not the most impressive set of ideas in the world, but children do love the simplicity of these games because they can deal with them easily on their own. The fact that this does not exploit the capabilities of CD at all makes this version no news at all for Amiga owners who can buy it on floppy; but it falls into the category of stuff that it would be a shame for CDTV owners to miss out on. At the same time, it seems it's purely marketing that stops Europress from putting all the *Fun Schools* on one CD. The question you should ask yourselves is are you being ripped off?



There's a choice of six simple games, testing reading, comprehension and counting.



It seems overly simple – click on an action and teddy does it – but kids find it accessible.

Verdict 70%

FUN SCHOOL 3: 5-7S

£24.99 EUROPRESS SOFTWARE

Essentially very similar to the other *Fun School* title, this is again a straight port of the two-year-old Amiga version. Because this is for an older age group, it involves a couple of more challenging concepts in the skills it is attempting to reinforce.

Of the six small games, four are pretty simple, involving: picking out the right object in the toyshop; telling the time on a clock with hands; guiding the frog to the place identified by a word; guiding the frog around the pond picking up mathematical symbols and numbers to create a correct sum. The other two are somewhat more adventurous, one testing knowledge of simple electrical circuits and the other teaching the basic skills involved in using a computer database.

These differences aside, the same applies for this disc as for the other *Fun School* series, and their well-thought out characters, remain enduringly popular with Amiga owners and children take to them very easily, but you can't help feeling that the asking price is a bit too high.



Of these six games, Electricity and Funtext are unusual and interesting ideas.



Your average 7-year-old should find this easy, but there are increasing difficulty levels.

Verdict 70%

LEARN FRENCH WITH ASTERIX

£34.99 EUROTALK



Really this is just a storybook in French. But the way it has been presented makes it an ideal way of learning the language.

It's a simple enough idea, but it makes one of the most impressive CD titles yet to appear. Essentially this is just a talking storybook of the Asterix and Son book from the incredibly well-loved series. And it's in French. So far, so what?

Well, for starters it's narrated. This means that what you get is the pictures, digitised so that each screen to appear is just one frame; the words written down, in the captions and the speech bubbles; and the words spoken, by the narrator. For anyone learning a language, reading a favourite and familiar book in that language is a great way of developing. But when you've also got the speech, it adds a whole extra dimension.

You can read the story through with pictures, speech and no written words; or with pictures, written words and no speech. Or you can read it through with all three if you like, in 'interactive' mode, in which you can replay the speech bit by bit to help you understand it properly.

The coup de grace, however, is the last bit. If you add Microdeal's Voice Master, which is a microphone with an interface that lets you plug it in the parallel port, you can go through the story in another mode. This lets you listen to a sentence, then 'record' your own version with the microphone. You can then play back your version next to the original, and see where you are going wrong. It sounds like a gimmick, but it does work surprisingly well!

Verdict: 84%



The story of Asterix and Son is digitised and broken down so that each screen is one frame.



You can simply read it through on the screen in French, clicking the button to see a new frame.



Apart from just reading, you can listen (no words appear) or both read and listen in 'Interactive'.



But this is the best bit: listen to the French, record your own speech, then compare the two.

MYPAIN

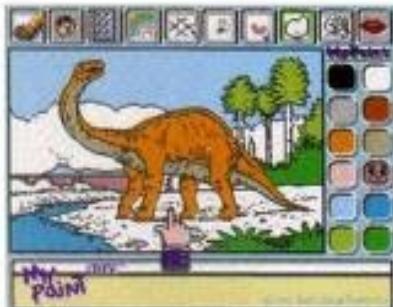
£29.99 SADDLEBACK GRAPHICS

This is a slightly altered Amiga port. It's a simple paint program and colouring book. While the Amiga version was ideal for encouraging the creativity of younger aspiring artists, this is hampered by the control method: draw a picture using a remote keypad and it ends up all straight lines and horizontals. With this part of the program rendered almost useless, you're left with an on-screen colouring book. The 100 or so line drawings which are there to be coloured are pretty decent, and numbers and alphabets add an educational angle. Yes, it's fun. But it's not special, and it's worse than the Amiga original.

Verdict: 35%



There are three different 'modes' in which this kids' paint program operates: freehand draw, as seen on the left, colouring book, as seen on the right, and 'magic' reveal: a picture appears as you scribble.

**ALL DOGS GO TO HEAVEN**

£34.99 MERIT SOFTWARE

This is an even more mundane colouring book. It contains a number of line drawings of scenes from the canine musical movie, each accompanied by a snatch of soundtrack. You move the pointer over the colour you want to use and click the button, then move the pointer over the area you want to paint that colour and click the button again, and it fills in.



Click on the colour you want at the bottom of the screen and then click on the area you want to fill. You can also listen to the sounds. That's yer lot.

BARNEY BEAR GOES TO SCHOOL

£29.99 FREE SPIRIT

Seldom has **Amiga Format** seen a more appalling educational game. It's an Amiga port with absolutely no tweaks at all, and even as an Amiga game you'd wonder what they'd done with the other half of the disk.

It starts with Barney tucked up in bed, and you click on him to rouse him. Then he goes to the wardrobe, and you have to click on his red



One of the three 'interactive' scenes that Barney encounters before he gets to school. Does Barney want to eat a hearty breakfast?

Computer paint books are satisfying in a way for young kids, because they can't colour over the edges the way they can with crayons, and because they can change any colour at any time. This means that they can happily spend a few minutes absorbed in the task of getting it right – and, of course, none of the changes are saved, so each time the title is restarted there's a blank canvas again.

I'm sure the kids will want to show Mum the results: but one of the drawbacks about this colouring book idea is that they can't hang it on the wall. Go on, be nice to your kids: give 'em some powder paints and let 'em get dirty instead!

Verdict: 25%

Verdict: 11%

WORLD VISTA ATLAS

£54.99 APPLIED OPTICAL MEDIA



Each country has much more than maps: you can even hear local music!



Each country is split into several areas, each with its own map.



Digitised images of the landscape and the cities give you the feel.

The main thrust of this disk ought to be the maps, but really it isn't. The maps themselves are nice large-scale colour jobs, that have been digitised and presented as massive overscans which you can scroll around, which is reasonably practical, but a zoom-in feature would have been nicer.

When you select a country, you are also offered massive quantities of other types of information, including lots of geographical, cultural and political statistics, which would make this a good educational tool for children. The most interesting options are the images, digitised photos of landscapes and people, and the language option, which runs through a number of basic phrases in the country's native tongue.

There's a lot of good ideas packed into this package, and it could happily replace the basic atlas in book form in schools and families. The photographs, along with speech and even music, from the world's nations make this a voyage of exploration rather than just a dry-as-dust chore. All it really lacks is a few extra touches in presentation and a lower price.

Verdict 75%

AMERICAN VISTA ATLAS

£54.99 APPLIED OPTICAL MEDIA



Each state has topographical maps with a preview of the whole lot.



Digitised pictures tour the sights, from great man-made features...



...to the beauty of the landscape.

Very similar to the *World Vista Atlas* in its presentation as well as in the kind of information that it offers, but tweaked to cover a state-by-state survey of the USA. It's slightly less fun and rather more information-oriented than its partner, with more maps, information and statistics.

You might expect it to be off-putting simply because it's about America and wish for a UK version; but in actual fact, the opposite is true. As a journey of exploration around a foreign country it works excellently, particularly because of the masses of digitised photographs of places of natural, historical, architectural or just touristic interest. I've already discovered several places I now want to go to on holiday!

A set of these covering different countries would be a great learning tool. Again, the criticism labelled at the disc would be that the presentation could be brushed up: less selecting from a menu of words or browsing through a slideshow of pictures, and more zooming in to detailed maps or clicking to reveal a photo. And again, it's a little over-priced.

Verdict 75%

THE GARDENFAX SERIES**INDOOR PLANTS
TREES, SHRUBS, ROSES AND CONIFERS
FRUITS AND VEGETABLES**

£34.99 EACH INTERSEARCH SYSTEMS

Home-grown stuff, this, and perhaps it's only in the UK market that a CD on gardening could take root and flourish, never mind three titles. First impressions are somewhat off-putting: the graphics appear to have been designed by someone who thinks that *Blaskey Blask* is the sort of thing that makes the BBC lead the world in television. Forgive it that – and after all, taste is a very personal thing – and you realise this is an excellent product.

The gaudy main screen is a clever way of 'filtering' the index of 200-odd plants that are available for you to choose from. You click on an icon to define certain criteria – these icons are so effective that hav-

ing used them once you'll never have to think twice about what they mean.

So by clicking on the 'light' option, for example, you can choose plants that prefer direct light to ones that want shade. Each time you select a particular criterion, the number of plants in the index is honed down, and you can go on defining the different criteria until you've found the red-flowering plants that like sun and a high temperature. This way of searching a list is unique in the CD titles we've so far seen and works excellently.

By now, the list is down to only a dozen or so: so you pop off and browse through till you see some-

thing you like. Each plant has a description, a picture and guides to caring for it. There are also little 'film' animations you can watch, that show you tricky operations like repotting as a step-by-step sequence.

The main difference between the different discs is that the criteria are changed, but only slightly: so for vegetables you might want to choose between a root crop or a top, while with trees it may be a leaf colour or their that's important. The other change is to the films, with appropriate techniques for the different kinds of plant.

This is really aimed at the novice or the developing gardener, rather than the experienced hand: and it seems to offer all the information you need to choose suitable plants and care for them properly. And that's really what you need to know.

Verdict 85%

TIMETABLE OF HISTORY: SCIENCE AND INNOVATION

£39.99 XIPHIAS

Titles found in search on: nuclear		141 items
1981	SODAR	
1981	USSR Nuclear Ship	
1981	100 Years of UK Electric	
1982	UK Atom Smasher	
1983	W and Z Particles	
1983	JET Fusion Reactor	
1984	Top Quark	
1984	Superdense Matter	

The first way of finding the information you want is to select a keyword. From the keyword 'nuclear', all these different topics can be accessed.



Zoom in on an era to find what you want.



Space Shuttle Endeavour being transported by a modified 747 jet (NASA 2015, April 1981).

Pictures pop up, but not often enough.

The trouble with this is that it looks like it takes itself far too seriously. The visual presentation of the material lets it down immensely; it's dull and forbidding. There are essentially two ways of accessing a topic: from an index of keywords or from a 'timeline' of historical periods.

On a casual browse, you can find out a lot of interesting facts you never knew. A system that lets you highlight words in any piece of text to find other pieces on the same topic leads you on a fascinating wander through a world of information. On the other hand, there's an awful lot of very dull information too. What ought to bring it all to life is the ability to click on an icon to get photographs, illustrations, film footage, animations, snatches of sound and helpful diagrams. Sadly these are few and far between – I only came across one film sequence, of the space shuttle Challenger taking off. And frequently the same illustration pops up time and again, and you realise about the second time that it's pretty irrelevant to the subject.

Whether the makers of CD reference books are discovering that 500 Megabytes of data is all too little, or whether they are simply being lazy is anyone's guess, but it's this lack of the excitement that more graphics and sound could bring that lets it down.

Verdict **70%**

TIMETABLE OF HISTORY: BUSINESS, POLITICS AND MEDIA

£39.99 XIPHIAS

Blackout Injuries		1940
<p>Wartime injuries are numerous in England. One Briton in five turns up hurt. Some are bowled over by careless runners; many walk into Air Raid Precautions posts; dozens stumble off curbs; but many of the more severely injured are run over by cars.</p>		

This is typical of the information you discover: it reads much like a newspaper article, with no real context. Clicking on the film camera icon brings up a picture.



Presentation is identical to the Science disk.



Ronald Wilson Reagan 1981 – 40th President of the USA.

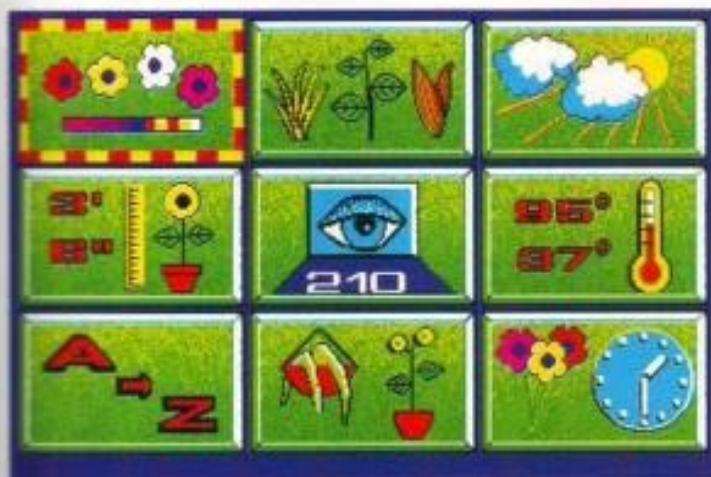
The pictures tend to be rather yawnsome.

The second title in this series is aimed at the sort of topics and facts that you would expect to find in a general history text book, which blends gradually, as we come through the centuries and into recent times, to become a bit more like a potted newspaper of the last 50 years or so.

Each event in modern history is presented very much like a newspaper article, which very often means you don't have a specific context for a piece that you're reading. Even the well-implemented keyword system doesn't help you out much, because clicking on a word brings up a list of similar newspaper reports that are equally incomprehensible individually: there is no way of getting a simple potted background to the events being discussed.

The illustrations tend to be more reminiscent of newspaper photographs. Some are just black-and-white stills of famous people, while others add background but not enough relevant information. The sound clips are also much like the small quotes that you get in many newspaper articles. And again, like a newspaper, this is also a product of its time and place: it's prejudice to an American view of the world and the way that events affected their country. On the whole it's far too biased a look on the history of the modern world.

Verdict **45%**



It may look hideously gaudy, but in use this is the best main screen yet to be seen in CD software. Go round the outside selecting your criteria with the beautifully obvious icons: top left is colour of flower, for instance, and top right is amount of light. When you've set all the criteria you want, click on the eye to view the number of plants that fit the bill.

CHOOSE A CRITERIA TO SEARCH BY	
<input checked="" type="checkbox"/>	Bright
<input type="checkbox"/>	Half Shade
<input type="checkbox"/>	Shade

We want a flower that can survive in bright sunlight, so we put that on the wish list too. With all our criteria established, we can scroll through a list of suitable.



All the plants on the list we look through will suit our requirements, so now it's just a question of taking a look at the pictures and choosing one that looks nice.

CULTURAL INFORMATION	
	An evergreen plant (keeps leaves) Prefers acid conditions (acid peat) Reseeds late autumn in spring
	Olive tree green Likes Karamana



THE ILLUSTRATED HOLY BIBLE THE ILLUSTRATED WORKS OF SHAKESPEARE

£29.99 EACH ANIMATED PIXELS



Knock me down with a feather if that's not a typo – the button has been 'one'? This is a major problem with these discs.

When we first heard that this disc was to be released, we expressed our fears that it would be simply composed of on-screen text and a few pictures. It's been said, mainly by an extremely optimistic Commodore chairman, that CD is the medium of the future that will take over from books. But if you use CD simply to present a book, using none of the exciting possibilities that interactivity brings, what do you end up with? A book that's hard to read and hurts your eyes. Nice idea!

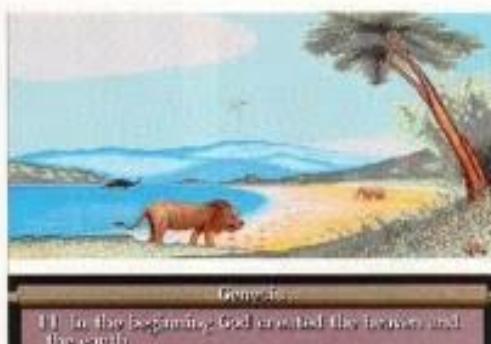
Sure enough, our fears have come true. The only real achievement about this disc is that someone has proven that you can fit the whole Bible onto a CD. The only real interactive elements are that you can change the typeface, search for a particular verse or scene and search for a specific word. Now the last two of these are vaguely useful; but they don't really make up for an inadequate idea.

As for the pictures: well, the digitised engravings of the Shakespeare disc are reasonable enough, but the *Deluxe Paint* images from the Bible are really pretty amateurish. And, perhaps most disappointing of all, it only takes a few minutes to spot some glaring typing errors.

Who wants to read Shakespeare on the telly, when a video of the play is much more enjoyable? Who wants to read the Bible on the telly, when a book is cheaper and immensely more practical? It's just not a sensible proposition.



The mechanic of the system is simple enough. You select the book you want to read from the bookshelf, and it starts at page one. You can skip through acts and scenes (or chapters and verses in The Bible). And from time to time there's a picture to see.



Pictures appear if you click on the icon in the row of the bottom of screen. The Bible features such DPaint efforts as this.



The Leopold from Othello
Cypress, A Street. Info: £49.99 and £100.00

Verdict 25%

NEW BASICS ELECTRO

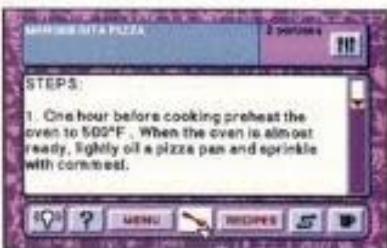
£39.99 XIPHIAS

The first thing that hits you about this is the smart and sophisticated appearance of the screens. The second thing is that this title is special in having a way of letting you narrow down the number of choices according to circumstances (similar to that of the *Gardenfax* series, previous page). This is more than just a recipe book; it's also a coffee-table book about food. But the core of it is recipes, and the clever thing about it is that there are several ways of accessing those recipes.

The cleverest of these is the 'Food Types' selection. This lets you pick out a number of ingredients – either because that's what you have in the house or because you're a fussy eater – and choose from only the recipes that contain these ingredients.

The other ways of discovering particular recipes are to use the Meal Types option to select from recipes suitable for a particular kind of meal (breakfast, for example) and the Special Occasions option that picks out slightly extravagant ideas for birthdays, parties and other festivities.

Apart from that you can select from the complete list of recipes or a list of set menus, or you can go via the cookbook itself which presents chapters with background and features as well as the recipes. It's here that illustrations are most likely to be involved: these are mainly groups of pictures, such as six different kinds of bread, which pop up at any suitable opportunity.



Recipes start off as a list of ingredients and move on to how you cook the dish in question.

HUTCHINSON'S ENCYCLOPAEDIA

£49.99 ATTICA CYBERNETICS

This is one of the two discs that come free with the CDTV (the other is *Lemmings*) and with the pedigree of the book from which it is taken, it ought to be a winner. Sadly, it fails to come up with the goods.

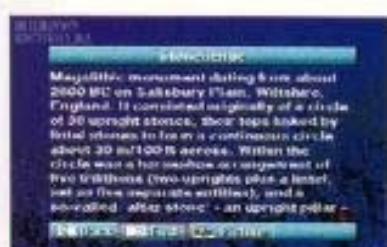
The main problem with it is presentation. The only way to access the information – apart from viewing the pictures in a random slideshow – is from a straightforward alphabetical list of all 25,000 entries. This is ameliorated somewhat by the fact that you can type in the letters of the word you're looking for, and as you input each letter the index is cut down to only the entries that match what you've typed – so if you've typed 'ani' so far, you'll only be offered entries that start with those three letters – but it's far from an ideal system. Any way of splitting the entries up into groups of subjects would definitely be a help.

The control system is confusing at first, because it's split into two: while the pointer is on the bottom bar it works one way, and while the pointer is over the main screen it works in a different way.

But the major problem, in common with a couple of the other CD reference works, is that the whole thing is lacking in excitement. Most of the pictures are dull, many are in black-and-white, there's no animation and the much-vaunted sound clips from the BBC archives are few and far between. The maps are simply pathetic.

CD should have three advantages over a printed book: first, the pictures can move; second, information can be discovered by the reader more easily if it is presented in an interlinked, cross-referenced and, above all, enticing way; and third, you can listen to it as well as just reading or looking. These are what make it exciting, and these are what this disc lacks to any great degree. We don't want gimmicky discs that are all flash presentation and no substance; but we don't want ordinary books disguised as a new medium, either.

Verdict 47%



Type in a few letters to narrow your choice, then select a topic and read all about it.

FRED FISH COLLECTION

S35 HYPERMEDIA CONCEPTS



For an instant games and utilities collection, check out the Fred Fish Collection on CD.

The other major possibility for CD is storing not one little Amiga game, but a whole mass of Amiga software. If you're new to computing, you may not be familiar with the name Fred Fish. This is actually a compilation of over 100 Public Domain disks from the Fred Fish library, featuring really useful utilities, demos, games, animations and pictures to add to your collection.

A lot of the games and demos are very entertaining and the utilities cover a wide range of applications, so there's bound to be a lot to interest a great number of people. Unfortunately, you can only access the disk by loading the Amiga Workbench, so only users with an Amiga and A690, or CDTV owners with an external drive and a Workbench disk will be able to use the disk. Still, if you are a serious computer user in need of some additional utilities and you've missed out on the Fred Fish series, then this CD will be a veritable Aladdin's cave of delights (to quote a tacky cliche).

Verdict 78%



This Mandelbrot pattern generator is just one of the little items available on the Fred Fish CD.

VOICE MASTER

£19.99 MICRODEAL

This is simply a microphone and an interface which allows it to be plugged in to the CDTV's parallel port. It can be used to make the most of the excellent Asterix title, or for a number of other forthcoming releases. And it works fine. We mention it simply so you know of its existence.

CD REMIX

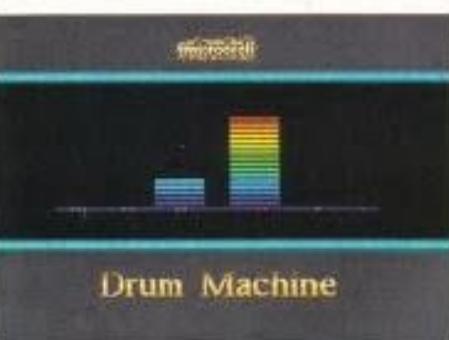
£29.99 MICRODEAL

Being able to control a CD player directly from a computer opens up a very interesting musical possibility. Instead of needing expensive sampling and mixing equipment to rehash old records, you can do it with a CD ROM and a single program.

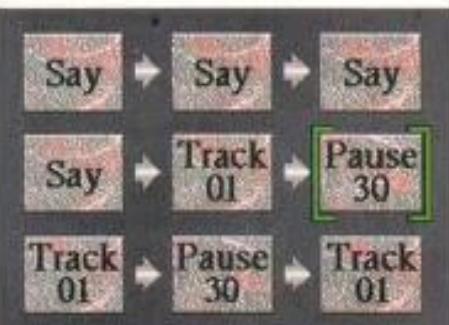
CD Remix allows you to combine Amiga samples and drum sequences with music from any CD of your choice. All you have to do is load up some samples, create a drum pattern or two on the drum editor, then use the main sequence editor to carry out your remix combining the three. You can play any portion of the CD at any point and intercut the music with built-in computer sound.

Although some of the change-overs sound a little scrappy in places (you'd need some wonderful studio-quality CD equipment for that), and actually producing a worthwhile mix of a track takes quite a bit of practice, *CD Remix* is without doubt a great leap forward in the production of 'bedroom music'. Some of the technical quirks need tidying up and a few sections of the editing system could become a little more user-friendly, but this is the first program in a pretty new field for home music. In time, after a few more programs come out based on this theme, this could be the next big thing for amateur DJs with high hopes and dreams of stardom.

Verdict 80%



The drum sequence page has a very nice colourful set of LEDs to make the screen look interesting.



By setting up various sections on the main sequencing page, you can create some impressive remixes with ease.

MUSIC MAKER

£34.99 MUSIC SALES LTD

Music Maker is a four-section interactive music program. The first section is the Jukebox, with various digitised images being loaded up as you listen to several dodgy renditions of hit songs. Next it's the Play Along section, which allows you to play along using either a MIDI keyboard or the number keys on the CDTV controller.

The third section, Drum Along, allows you to select a drum kit from a choice of four, then play along with a CD of your choice. This sounds good in theory, but in practice the drum sounds are just too feeble. Still it's fun for a minute or two. The last section is a quiz for between two and four players. Various multi-choice questions are called up, ranging from naming composers and instruments to remembering the years of hit songs.

Although the idea is good in principle, *Music Maker* doesn't really measure up to the initial expectations. The song renditions are pretty appalling and the subsections are lacking in any real entertainment. A case of too much novelty and not enough content, it seems.

Verdict 35%



If you think you know more musical trivia than your mates, then you can test out this knowledge in the *Music Maker* quiz.

EDWEARD MUYBRIDGE - WOMEN IN MOTION

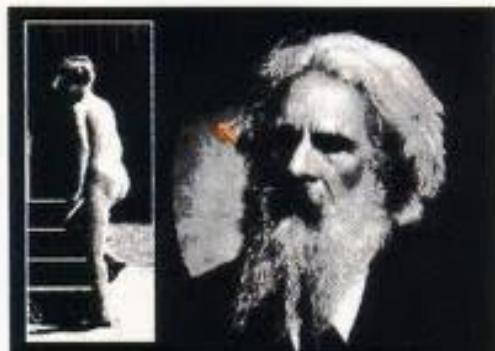
£29.99 ON-LINE

With the advance in technology that brought CD ROM, it seems strange to have a product based on the work of one of the earliest cinematographers. Edweard Muybridge was responsible for developing a camera system that could capture moving action as a series of still shots – and using it, he helped solve the mystery of how a horse gallops.

This disk features the history of Muybridge's work, nicely presented, with a decent narration to help you around. But the main element is lots of rude pictures of nude women dancing about, gathered into complete animations, which can be saved out onto floppy disk to help you create your own animations. Using the frames as a basis, you can draw figures with realistic movement: it's a technique known as 'rotoscoping'.

CD is ideal for storing masses of info, and you'll see more discs for animators. The problem is that the subject here is limited: a similar disc with different figures rather than just one well-built lady would be ideal.

Verdict 45%



With a fistful of digitised images and animations, *Women in Motion* showcases the work of Edweard Muybridge.

THE NEW GROLIER ENCYCLOPAEDIA

PRICE N/A ELECTRONIC PUBLISHING

The front-end of this one doesn't in fact greet, instead it sticks its head around the corner of the door and sneers "What do you want?" which is a real shame, because it seems to conceal quite a lot of good material for a CD encyclopaedia.

Essentially, the main way to access information is by typing in a word using the on-screen alphabet. You can then choose to search for titles of articles that contain that word, or for any occurrence of the word within articles. The only problem with this approach is that it does feel somewhat 'blind': as we have said before about CD reference works, some way of presenting a top menu of general subject areas or topics would be nice.

To give it something of that 'flicking through a book' feel, the authors have included a picture browse option, which does reveal a list of topic headings. It soon becomes evident that there is an enormous number of images on this disc – there are 133 images of trees alone, for example – which is encouraging. We've criticised other discs for being disappointing in this department. Many of the pictures are high-quality illustrations, too.

Brave that daunting first screen and you'll soon discover that this encyclopaedia is rich in text entries too. The word search pretty rapidly comes up with vast lists of topics, and a sensible information navigation system helps you pick out the one you want. As you would expect, once you are reading an article you can select key words to move to another topic.

This is probably the best reference work we have seen yet, with some very nice audio visual presentation. I don't know the book on which it is based, but it appears to be very much a Twentieth Century encyclopaedia: a search on 'viking' reveals plenty of info about space missions but none about hairy guys with axes. Though there is an awful lot about ancient history too.

Sampled sound, such as Martin Luther King's famous speech, pops up occasionally, if perhaps not often enough. But apart from that the scope of this seems impressive and, despite an inevitable American leaning, this is the most enjoyable CD reference work to come around so far.

Verdic 84%

This is the main screen for accessing the realms of information. Simply type in the key word for your search...



...and The New Grolier will search for titles of articles that contain that word...

THE HEROIC AGE OF SPACEFLIGHT

PRICE N/A TROIKA MULTIMEDIA

This is basically just a 50-minute movie. It makes use of the infamous CDXL, a compression technique which Commodore have cleverly managed to bring full-motion video to the Amiga CDTV. Unfortunately, it's only partial-screen full-motion. Seems like less than a quarter of the screen, in fact. And, of course, the number of colours is reduced.

The result of all this, unfortunately, is that it's just like watching a space-flight documentary on a miniature portable TV off a poor-quality bootleg video. While the documentary itself is fascinating and the audio narration and soundtrack is excellent enough, it's just not a very good way of watching something. The only real advantage for running it as a CD multimedia experience gives you is that you can instantly pick out and watch any particular section of the programme. Whoopy doo.

As a kind of megademo, which is basically what it is, this exerts a peculiar fascination. It's also a very good documentary. But you can't help but realise that if it was on a videotape you'd be able to watch it a lot more easily and it would cost a heck of a lot less.

Verdic 55%

Apollo to the Moon
Choose a topic or watch this movie segment.
Topics have detailed information and more images.
"Back" or "B" button returns to previous menu.

Back

Play CDXL Segment

field

Apollo 11 Moon Landing

Apollo 12 Mission

Apollo 13 Explosion

Apollo 14 Mission

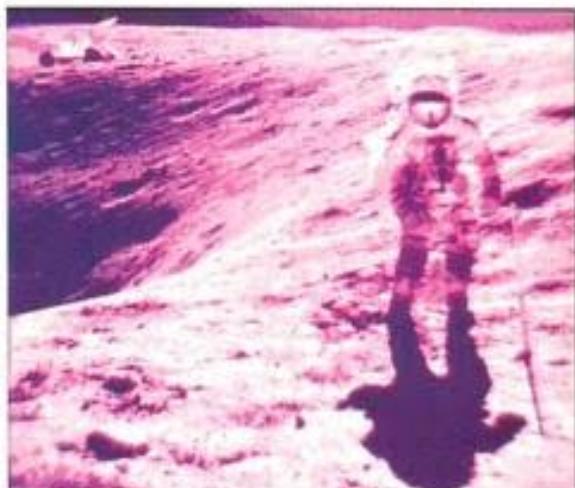
Apollo 15 - Lunar Rover

Apollo 16 - Lunar Rover

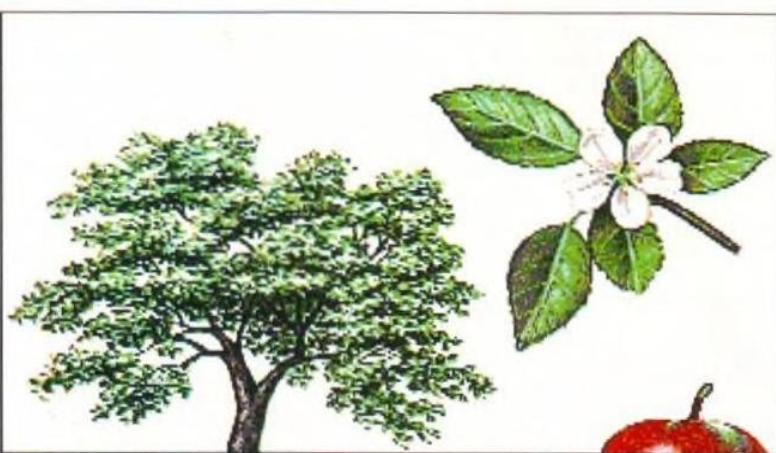
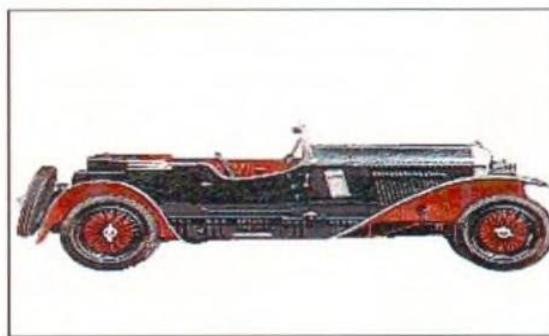
Apollo 17 - Last Mission

Although this is basically a video on CD, it does allow you very exact control over what you watch. From specific sections of the programme, you can read text information and browse stills.

What's new on CD?



While the full-motion video is a fascinating technical exercise, because it only takes up a quarter of the screen and colours are limited, the value of it as anything more than an interesting thing to show off is doubtful. However, what would be of immense educational value is the way that you can work through to a very specific topic area and learn more about it from on-screen text and still photographs like this one. The background info is detailed, well-researched and very interesting. Many a space freak will want to pick through it and read it all.



The common apple, *M. pumila*, one of about 25 apple species, is a small tree with flowers that resemble wild roses. Most commercial varieties derive from the common apple. The United States produces almost one-quarter of the world crop of dessert and cooking apples.

Electronic Publishing have released one of the best-presented encyclopaedias yet to arrive on CD. As soon as you start to browse through the package you encounter the hundreds of pictures that have been included, many of which are illustrated in this attractive watercolour style.

Continuing from last month's massive look at the first 45 arrivals on the CD scene, preparing for the 'imminent' release of the Amiga CD-ROM drive,

Damien Noonan takes an intrigued but critical look at the new releases.



For the most part, this is how you will be watching the action: the display area for live action is reduced to a quarter of the screen.



There's an awful lot of very good footage of NASA space missions, from the launch of the first Apollo rocket to the Space Shuttle.

ORDICODE POUR NOTRE LECTEURS FRANCAIS...

Ici l'Ordicode, une logiciel qui donnez vous beaucoup d'instruction de driving. Si vous acceptez le principe de priorité à droite, vous will find qu'il est très difficile en Angleterre, ou on drives sur le rive gauche, pas sur le droit de seigneur...

No, wait, but seriously though, folks. This one we mention merely out of satiable curiosity, because it's an interesting idea: it contains the French equivalent of the Highway Code as well as a basic driving course and it is intended, of course, to provide sufficient instruction to help you answer all the hard questions in a driving test.

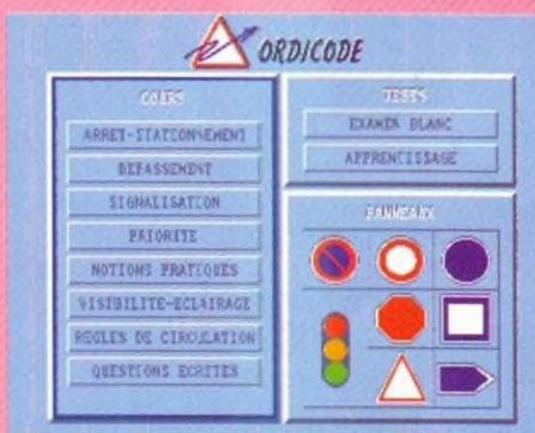
It's appeal over here will be limited, but it might possibly be useful as a language-teaching exercise in a pretty practical environment, though it does raise the question of whether a similar version in English would be helpful to all those learner drivers out there.

As well as a guide to French road-signs, in which not only the signs but also their legal and practical context are explained by text and a narrator, the program also includes a course of lessons and two tests. The lessons are followed as a series of photographs of situations, about which you have to answer various questions.

As far as my basic French allows, the course seems to be an excellent run-through of driving theory and road laws and I would imagine that an English version of this disc would make ideal theoretical 'revision' for a driving test. What it isn't - and I have heard this suggested as an idea for an Amiga CD - is a moving driving simulator.



During the lessons, you as driver of this car are faced with a number of tricky situations and have to choose the right action.



The main screen presents the options on offer: practical tests like the one above, road sign revision, and the dreaded exams!

FALCON**£49.99 MIRRORSOFT**

Whether either of the two Mirrorsoft titles will actually find their way onto the shelves after the demise of Robert Maxwell's myriad of companies - Mirrorsoft officially liquidated last December - remains to be seen, but no doubt someone will acquire the UK rights to this.

Spectrum Holobyte of the US are probably better known for this F-16 flight simulator more than anything else, and inevitably with the popularity of the 3D flight sim as a game it makes a lot of sense to transfer it to the CD medium. If you were a naive CDTV owner who'd never played a flight sim before, you'd probably love it.



The presentation screens (left) are many and varied, with a whole heap of missions on offer from this compilation of missions package. Once you're on the runway, the sim plays more like a game, but the added audio effects really give it bite.

Verdict **75%**

It doesn't, however, really add a lot for the Amiga owner. Apart from combining the first program with the mission disks, the CD version tends to restrict the ideas of the original rather than expand them. Control has to be made possible from the remote control joypad, so only a minimum number of controls are left in: power up/down, missile load/fire, the joystick moves, radar and target lock, chaff, air brakes, autopilot and view switching are all catered for. This is enough to make it very decently playable, but would disappoint some purists.

Control with a joypad is odd, too, tending to be excessively digital and on/off. For the novice, this makes the whole thing easier to handle, but it does tend to make the whole appearance of the game jerkier and less realistic.

There's a good stack of missions here, all nicely judged to appeal at various difficulty levels: and the in-between presentation screens are nicely touched up. In-flight audio is greatly enhanced by the addition of some realistic recorded speech: it's not just random, either, but closely tied to what you do.

This was probably always more of a combat flight game than a sim, and the difference is even more exaggerated in this version. All the same, it's highly enjoyable and a good example of how the computer game exerts its own unique fascination. But it's not about to change the world.

XENON 2**£29.99 MIRRORSOFT**

Apart from it being an aged shoot-em-up, the distinguishing characteristic of this one is its pioneering of a new form of experimental 3D 'holophonic' sound called 'Space Sound', designed by musical instrument manufacturers Roland.

As the original game was also noted for a pioneering idea in sound - the use of a soundtrack by a pseudo-house group called Bomb the Bass, who were quite popular once - it seems an appropriate gimmick. While it makes for some pretty effectively boomy speech and echoey noises, I can't say it sounded all that 3D, but there you go.

Special studio remixes of Bomb the Bass tracks provide the full hi-fi audio accompaniment, and jolly pleasant they are too. The only thing you might have forgotten in all this audio excitement is the gameplay. While it was a jolly attractive-looking, well-presented and nicely-balanced shoot-em-up three years ago, time has tended to take its toll and it does now look a bit dated. More than just unfashionable: it has the sort of staleness that 1970s shoes do in Oxfam.

When you can get it as an Amiga budget game, the powerful soundtrack is not enough reason for being interested in the CD version.

Verdict **45%**

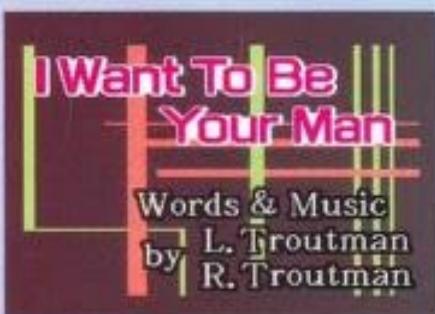
**CD+G Karaoke**

The DK Karaoke discs are not really Amiga CD titles at all, in that their main purpose is as audio CDs and the graphics information contained on them is not in Amiga format but of the CD+G standard. CD+G, in case you are not aware, is a special kind of audio compact disc which will play on any CD player but, also, on a special player, will produce a TV signal containing graphics too.

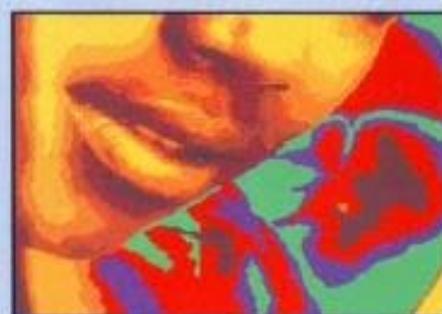
Naturally, the audio on these discs is soundtracks of popular hit songs with the main vocals removed, while the graphics information is a step-by-step run-through of the words. Not, as I had feared, with a little ball bouncing along

the top of the lines, but instead with the words that you are supposed to be singing highlighted in yellow.

You can't argue that these do the job perfectly well, in so far as the words are legible and the musical arrangements are, for the most part, actually pretty decent. Whether or not you will be interested in buying any of these discs depends solely on two things: firstly, whether you actually want to use your Amiga CD as a home karaoke system; and secondly, whether you actually like any of the songs. We've looked at a couple of discs from the series and they leaned a bit too much towards Seventies disco for my liking, but I believe there are an enormous number of discs available (about 50), so basically you pays your money and you takes your choice. "Working at the car wash, yeah..."



There are about 15 songs on each Karaoke disc, and each song is introduced with a title page like this.



After the title screen, a graphic intro picture like this appears to set the mood.

Hey lady,
let me tell you why,
I can't live my life
without you, oh baby

The most important screen is, of course, the least attractive. But the highlighted words are clear enough.

TRIVIAL PURSUIT

DOMARK

£49.99

This and the *Guinness Book of Records* are probably the two most important titles for CDTV and the Amiga. The scale of this enterprise is unique: it comes on two CDs, which is a monster amount of data.

The essence of play is the same as the famous culture-changing board game: six players move round a board and answer questions in six different categories. Good die throws and good answers are both needed to win. Inevitably, the basic game structure had to address handling whose turn it is, the die-throwing and question-asking. But in all aspects, the way it has been done leaves room for some improvement.

A chirpy cartoon character has been chosen as game-show host and is predictably irritating. Clips of animation and real speech are used to swap from player to player and keep the game moving, and after you've heard all three speech clips prompting you to roll the die, they do nothing but hold up the game and irritate the players.

The die roll has been really badly done, with a slow animation and a painful over-mixed sound effect making every roll of the computer-generated random number an endurance test, not a moment of excitement. Even though the process can be speeded up, it's still a badly implemented idea.

Each time you reach a new category of question, a host for that category is introduced. The cartoon characters used might amuse you first time through, if you like Bob Monkhouse's jokes, but of course the second time you play they are nothing but an irritation.

All the questions are accompanied by a picture of some vague relevance, but here too an opportunity is missed; an interactive CD version of the game could have added questions like "who painted this picture?" and "name this tune". Instead, too many are just word-based and the pictures are mostly irrelevant.

When you've got an answer you are happy with, you are expected to click as button to see if you're right and then to click on 'yes' or 'no' when asked "did you get it right?" which is somehow completely unsatisfying.

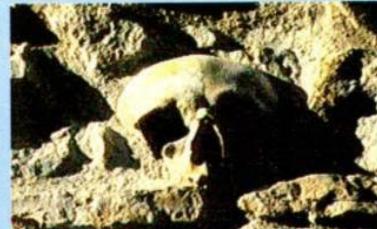
All in all, there is the same fun board game underneath, but doing it all via your telly seems to take something away from the game as a social activity (it's always fun asking questions when you're playing the board game) which it can't replace by clever-clever presentation. Add in a substantially higher price and, sadly, you're on to a loser.



The traditional Triv board layout is retained and supplemented by cartoony icons.



And here is your host, an animated bird whom you'll want to throttle before long.



months of the year are you most likely to die?

Just one of the many picture-based questions. This one's probably about the bird's predecessor.



AMIGA Verdict

65%

BATTLECHESS

INTERPLAY

£39.99



This is a classic computer game and an obvious choice for the CD format. It's essentially a very simple chess game and, unlike some other chess games, it has very few options for changing the way you play: no ancient, historical versions of chess and no expert tutorials to add 'grand master' expertise. Its gimmick, as the name suggests, is nice animation in which the

pieces do battle and the taking piece defeats the other. It plays a very good game of chess, but it's a very aged game. A CD title might be expected to give more.

Verdict Amiga Format rating 75%

LEMMINGS

PSYGNOSIS

£34.99

Lemmings, two years on, undoubtedly still deserves to be called the classic Amiga game – if you don't already have a copy, you should definitely get it. The only problem is that it's no use playing it with a CDTV remote control: the notchy, slow motion of the pointer makes levels that require fast action as well as brain-power almost un-doable.

It's also a shame that it has had no enhancement: the original Amiga tunes, while irritatingly catchy, do sound a bit out of place and the wasted strips of screen make it seem less than the polished and league-leading game it should be.

Verdict Amiga Format rating 75%

BATTLESTORM

TITUS

£29.99



An average shoot-em-up transferred direct from the Amiga. You control a spaceship and attempt to destroy bases on a large multi-directional scrolling map with many enemies making life difficult. It's not a great game and has no enhancements for the CD version.

Verdict Amiga Format rating 37%

CASINO GAMES

SAEN SOFTWARE

£24.99



A rather sorry compilation of three arcade games: a fruit machine simulator, a roulette gambling game and a sort of poker. A choice of music tracks is available, but makes no difference to the poor games. There's better stuff available in the public domain.

Verdict Amiga Format rating 21%

CHAOS IN ANDROMEDA

ON-LINE

£29.99



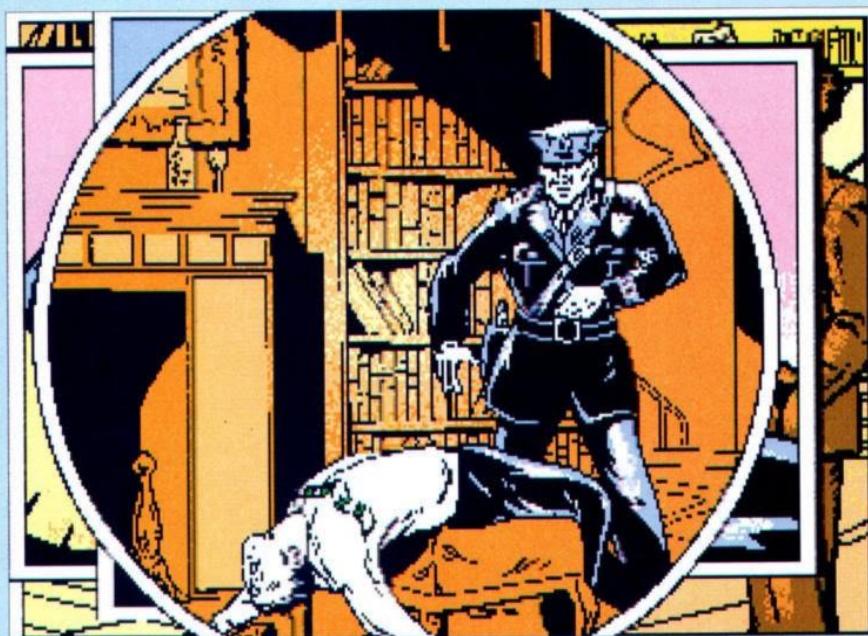
A sci-fi adventure in which you wander the surface of a planet solving mysteries. From the start, it's off-putting because you have to go through an unnecessary rigmarole setting up your character. Even when you get into it there's none of the fascination that makes you want to explore. Professional presentation; amateur ideas.

Verdict Amiga Format rating 33%

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CASE OF THE CAUTIOUS CONDOR

TIGER MEDIA £34.99



Lush graphics and sound make *Case of the Cautious Condor* a cinematic marvel, but the gameplay has its limitations. Yet another case of good looks but a lack of substance. Even so, it pushes the CD medium in the right direction.

Of all the games available for CDTV, this one already has the best reputation. It's something that could not possibly be done on floppy disks because its major appeal is massive quantities of gorgeous cartoon graphics – the intro sequence is an amazing 15-minute cartoon film.

Essentially it's a detective adventure game in which you have to guess the identity of the murderer by wandering around the rooms, eavesdropping on conversations and looking for clues. Unfortunately, the main game mechanic is the strict time limit, so your impetus for having another game is frustration at not finding out whodunnit on your last go, and it's not as much fun to play as it is to watch. But it's still a pace-setter that shows what masses of storage can do for graphics and sound.



79%

DEFENDER OF THE CROWN

CINEMaware

£29.99



A strange game, the main appeal of which is attractive graphics, now enhanced by real sound off CD. It was considered a classic four years ago but hasn't stood the test of time simply because the gameplay is somewhat feeble. You play a knight wrestling with a combination of strategy/management tasks (looking after food, training armies, invading neighbouring English counties) and arcade-style action, with some rather dull little joystick-waggle sub-games in which you battle into a castle or compete in a jousting tourney. *Defender of the Crown 2* is soon to follow, and will cost you a fiver more.

Amiga Format rating 48%

FALCON
MIRRORSOFT

£49.99



Possibly one of the most famous flight sims ever released, and this complete version comes with all the missions that were originally available on separate disks. It always was a good game and is little changed for CDTV – the only use of audio CD capabilities is for 'radio contact' messages in real speech, which do add an extra layer of realism to the atmosphere. Inevitably, in a form intended to be played from a keypad, control is simplified, which gives a more combat-game feel. It's still great fun, but is no longer the best flight sim around and has not been radically updated for CD.

Amiga Format rating 75%

HOUND OF THE BASKERVILLES

ON-LINE

£29.99



This offering aims to present the Conan Doyle classic using a form of presentation pioneered by books in the Fifties: take the book apart and let the reader reassemble it by reading appropriate parts and by following clues. The end result fails almost utterly. It becomes a book which you must read as reams of on-screen text. The tale is not made any more intriguing by the fact that it is split into pieces and read to you by a hi-fi-sound narrator. It really is a load of rubbish and completely misses the potential of CD as a vehicle for interactive entertainment.



Amiga Format rating 12%

MIND RUN
CREALUDE

£29.99



The French are renowned for coming up with particularly odd computer games, and this little collection of memory and IQ tests lives up to the Gallic stereotype by presenting itself with terminally weird, Salvador Dali-style surrealist graphics. Underneath the surface gloss lurks a bunch of games reminiscent of the puzzles you'd expect to find in daily newspapers and are too feeble to be of any real fun. *Mind Run 2* is set to follow and is not expected to be anything else but more of the same.



Amiga Format rating 32%

PSYCHO KILLER
ON-LINE

£29.99

If CD has the potential to bring us interactive movies, then *Psycho Killer* would just about qualify as the interactive home video. Its graphics were shot on location in the London area and digitised, which has the unfortunate side effect of making it look like a movie in which Vauxhall Chevettes and anoraks appear when there should be Ferraris and Armani suits. The major let-down is the gameplay: you flick through screens where nothing happens, then come to one where you

continued on page 38



are expected to make an action by moving the pointer rapidly to part of the screen and clicking a button. Fail and you're dead, which means having to sit through the dull intro sequence again before you can take your next go. It just isn't real gameplay.

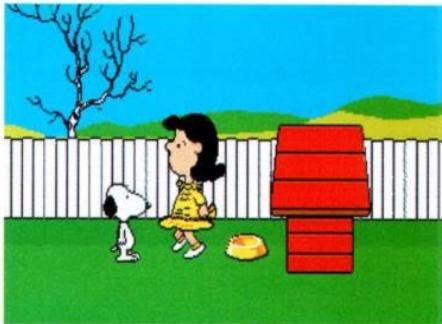
Verdic

Amiga Format rating 13%

SNOOPY: THE CASE OF THE MISSING BLANKET

THE EDGE

£34.99



It looks very nice, with colourful animation, so it may just appeal to the youngsters at whom it is so clearly aimed. The simple 'find object by wandering around the screens' gameplay, however, makes it a definite no-go area for anyone over 10 years and yet younger players would almost certainly find it frustrating.

Verdic

Amiga Format rating 36%

TOWN WITH NO NAME

ON-LINE

£29.99



On-Line continue to exploit original techniques in their efforts to produce worthy CD titles. Unfortunately, this one again falls down on gameplay. It's a cartoon adventure produced using 3D modelling techniques in which you wander into town, explore locations, find the jokes and shoot a few baddies, all of which takes half an hour or so, top. Longevity it just don't have.

Verdic

Amiga Format rating 35%

SIMCITY

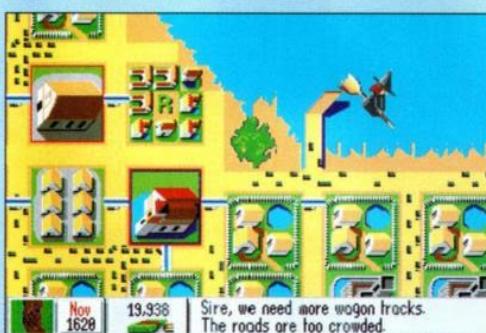
INFOGRAPHICS £29.99

Another classic now released on CD, this is probably the game that has seen most enhancement. It features a soundtrack played from hi-fi tracks on the disc, recorded specially by a band in a studio just for the game, and themed appropriately for the different parts of the game. The game itself has also been changed, with new historical scenarios (such as Wild West and Medieval), excellent new wandering monsters and a zoom mode that allows you to take a close-up look at your town.

If you aren't familiar with this one, the idea is to create a city by placing amenities (roads, housing, industry and so on) in appropriate positions and your performance is monitored by the approval of the population. You are called on to handle various crises, too. All in all, it's probably the most fun and accessible strategy game yet produced and has an aura of seriousness about the fun that makes even the most serious of parents and non-gameplayers approve.

AMIGA
Verdic
FORMAT

75%



SimCity may sound like a town planner's dream and a yawn-fest for the rest of us, but it's really quite bewitching.



The CD version adds a new slant to this strategy game, with ye Medieval and Wild West scenarios included y'all.

WRATH OF THE DEMON

READYSOFT

£29.99



This is an arcade-style action game which looks very pretty and takes up quite some disc space with a very nice Amiga-originated animated intro, but it's rather poor all the same. The first section, for instance, is a sideways-scrolling affair in which you, as a horse rider, must jump obstacles and pick up objects that suddenly appear on the screen, which at best makes it the equivalent of a very poor shoot-em-up. Later beat-em-up levels aren't really any better, so we've yet another offering that fails to do justice to the optical storage medium. Yes, CDs can store masses of data, but that data is dull data without some thought given to its entertainment potential.

Verdic

Amiga Format rating 32%

TEAM YANKEE

EMPIRE

£29.99

A straight port from the Amiga version of the tank game in which you control a squadron of four machines in a test of strategy. It's a good game, if not a great one, with the main mechanic being control from the map of the action in the 3D game-world. It requires plenty of tactical skills which the cleverly-ramped,

progressively harder levels will teach the novice tankie. The title provides fun and intelligent gameplay, but looks dated even though it's not that old.

Verdic

Amiga Format rating 65%

XENON 2

MIRRORSOFT

£29.99



When it came out, this Bitmap Brothers up-the-screen shoot-em-up was very highly rated for its detailed graphics, action-packed gameplay, neat power-ups and innovative pop-star tie-in soundtrack. Now, the graphics look dull and the gameplay is revealed as being too enemy-heavy, with massive power-ups trying to balance play in which too little strategy and skill is required. It's been well superseded by a host of subsequent shoot-em-up releases, but set a few standards in its day. Only the soundtrack remains innovative, using the CD's sound storage capability to add a high fidelity Bomb the Bass remix track – that old *Assault on Precinct 13 Megablast* – put together in Roland's innovative 3D sound. Best bought by Bomb the Bass completists (yes, you can play CD Amiga soundtracks in a hi-fi CD player) rather than by gameplayers, it's well past its sell-by date.

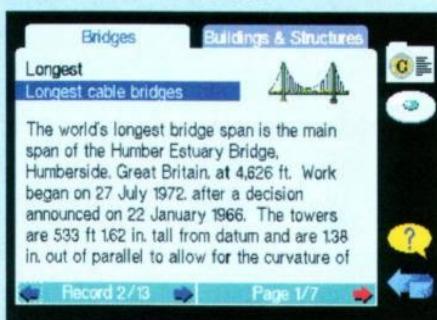
Verdic

Amiga Format rating 32%

continued over

GUINNESS DISC OF RECORDS

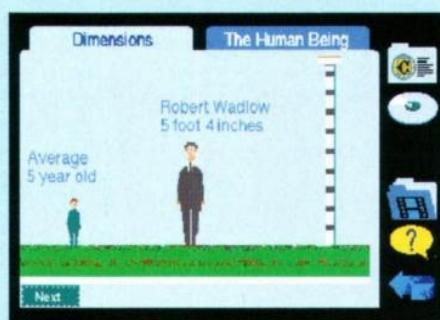
GUINNESS £34.99



The easy-to-use referencing system presents records of world records in a card-index style.

As big a name as the *Trivial Pursuit* game and equally important to CDTV, so it's a shame to see it fall down on a couple of small points. Essentially, you pick out records from lists of general topics and then from sub-lists of more specific topics, which makes it far easier to find what you want than does the 'here's the whole list – sort it out yourself' approach of some other discs.

Once you've found the record you want, you can read all about it and flick to other, similar records. Many of the records are accompanied by animated



Browsing through particular subjects is fun and educational, but record access times are a little slow.

sequences produced on the Amiga or by digitised photographs, which spices it up a lot.

It's also possible to take a 'tour' of certain subject areas from the main menu, which gives you a narrated soundtrack using hi-fi sound and a digitised slideshow, which is quite a fun way of browsing.

Criticisms are that record access is just a shade too slow to be comfortable and that the system of topics, lists and records can be confusing: the system of indicating when there's more to read, and the method of navigating to other similar topics is just a little too



Many records feature animations or clips of video footage to spice up the presentation.

techie in look, with labels like 'List 1/4' meaning 'the first of four lists'.

On the whole, it gets the job done, but it lacks the extra sparkle and magic we were expecting and the extra polish of music. We'd like to see a new version with a bit of added glamour.

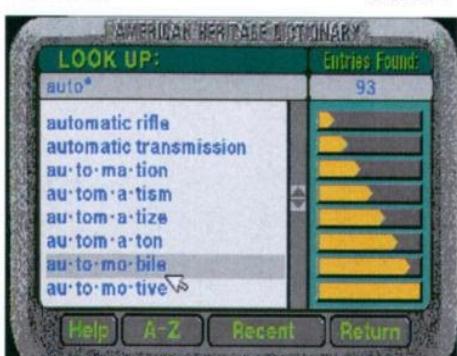


75%

AMERICAN HERITAGE ILLUSTRATED DICTIONARY

XIPHIAS

£49.99



The straightforward presentation makes it easy to look words up, and words can be spoken out loud, which is very helpful if you don't mind the American accent. What the American origins don't affect is the words – there's lots of English English, with some real slang defined as 'British, obscure'. But on the downside the pictures don't really serve any purpose and, worse still, some definitions use long words that aren't in the dictionary when you look them up.



Amiga Format rating 45%

ropy – but still frames can be expanded to full screen full-colour and more information in the form of text can then be called up as background, which is a hell of a powerful access system.



Amiga Format rating 55%

HEROIC AGE OF SPACEFLIGHT

TROIKA

£34.99

Currently unique, this is essentially a 50-minute video-on-a-disc which uses CDXL, the partial-screen full-speed animation standard on CDTV to give you a limited-colour, quarter-screen video. It's an interesting example of what digital video will bring, because you can choose any section of footage from a series of increasingly specific menus and because perfect pause is possible. If that were all, it would be rubbish – the use of limited colours makes the video look pretty

CONNOISSEUR FINE ART COLLECTION

LASCELLES

£34.99

A 'coffee-table book' tour of art through the centuries, centring on digitised pictures with descriptive text and supplemented by an audio soundtrack of 10 appropriate classical music tracks. Very curious.



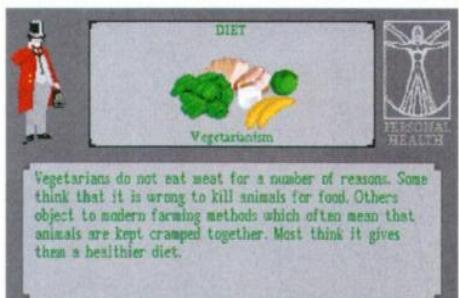
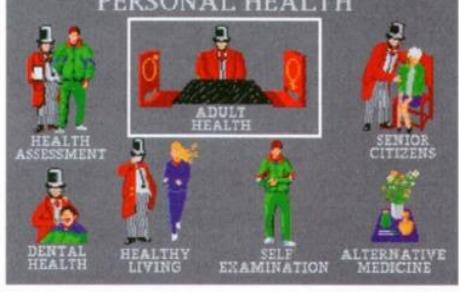
Amiga Format rating 77%

DR WELLMAN, HEALTH ADVISOR

DIGITA

£54.99

PERSONAL HEALTH



Narration throughout by a professional actor and a decent presentation of information are the strong points of this medical reference title. Where it falls down ever so slightly is that it lacks the feel of absolute authority a medical guide needs – the 'well-man' pun of the title doesn't help (with apologies to the good doctor if it's a real name). We tried looking up a couple of common symptoms and got absolutely no practical help. In spite of this, it's an informative and intelligent work with some genuinely useful information and makes good use of 'hot word' cross-referencing, by which you can select a particular word and it will take you to the relevant part of the database.



Amiga Format rating 78%

continued on page 44



The GardenFax front-end is one of the best seen on any multimedia disc, even though it looks pretty horrible. The number in the middle represents the number of plants currently under consideration: your task is to reduce the number to a manageable size by 'visiting' the options windows all round the edge of the screen and defining criteria for the plants you want.

GARDENFAX SERIES

FRUITS AND VEGETABLES

GARDEN PLANTS

INDOOR PLANTS

TREES, SHRUBS, ROSES

AND CONIFERS

INTERSEARCH

£34.99 EACH

Four discs, each of which helps the amateur gardener pick from over 200 different plants of a particular kind. These discs are a surprise hit; they lack an awful lot of polish and look really garish and unpleasant at first glance, but they also benefit from the best multimedia presentation front-end yet devised.

Essentially, the problem with multimedia CDs is you have a hell of a lot of information stored away and you have to do two things: one, make whatever someone wants to find easy to find: two, give them interesting and sensible ways of exploring if they don't know what they want.

The GardenFax system is clever. In the centre of

the screen is a number which at the start represents the total number of plants on the disc. What you then do is visit menus which cover different aspects of the plant you want: light conditions, colour of flowers and so on. Each time you make a decision – it must grow in strong sunlight, it must have red flowers – the total number available is reduced, until it's down to a handleable amount and you can browse through the list and pick a plant you like.

Moreover, each plant listed has a digitised photo and also lots of information about how to grow it and look after it. To back this up there are short tutorial slideshows on particular topics, like re-potting or laying out seed rows. These discs would benefit from getting an expert artist in, but the ideas are excellent.



85%

HUTCHINSON'S ENCYCLOPAEDIA

ATTICA CYBERNETICS

£49.99

One of the discs that comes free with CDTV, this encyclopaedia suffers from poorly thought-out presentation, to the extent that a new version is supposed to be under development. The CDTV publicity made much of the fun bits, where a subject is presented with colour images and a real soundtrack, but there simply aren't enough such bits to make it impressive. This leaves a fairly basic text-led encyclopaedia in which a simple alphabetical contents list is the main way of finding a topic. Simply not intriguing enough.



Amiga Format rating 47%

Stonehenge

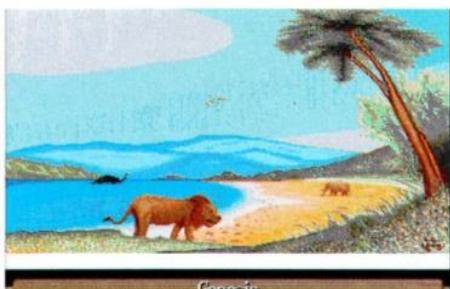
Megalithic monument dating from about 2000 BC on Salisbury Plain, Wiltshire, England. It consisted originally of a circle of 30 upright stones, their tops linked by lintel stones to form a continuous circle about 30 m/100 ft across. Within the circle was a horseshoe arrangement of five trilithons (two uprights plus a lintel, set as five separate entities), and a so-called 'altar stone' - an upright pillar.

Back | Fwd | Picture

ILLUSTRATED BIBLE

ANIMATED PIXELS

£29.99



When CDTV was first mooted, Commodore's over-the-top publicity heralded the demise of books as a medium. This is a perfect example of why that won't happen. The Bible is presented as on-screen text, never the best way to read, with poor watercolour-like illustrations. Only the word search facility really redeems what is essentially just a stupid idea.

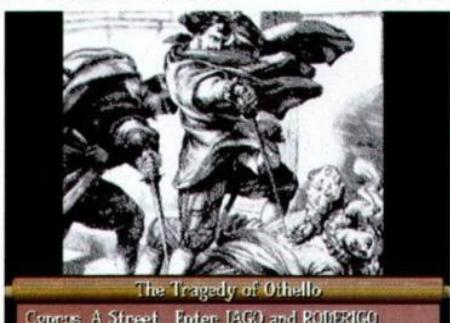


Amiga Format rating 25%

ILLUSTRATED COMPLETE WORKS OF SHAKESPEARE

ANIMATED PIXELS

£29.99



Ditto applies as to the Bible above really, except that the graphics are digitised line drawings. The fact that someone had to type in enormous quantities of text is made all too obvious by some mildly amusing mistakes. A waste of time and effort and money.



Amiga Format rating 25%

JAPAN WORLD

GLOBAL LEARNING SYSTEMS

£49.99

Probably the best Amiga CD title to date, this exploits the potential of multimedia better than any yet released, with a superb combination of pictures, graphics and animations that makes up a highly enjoyable dip into a very different culture. Lots of fun and very educational, anyone wanting to see what the medium can do should get this.



89%

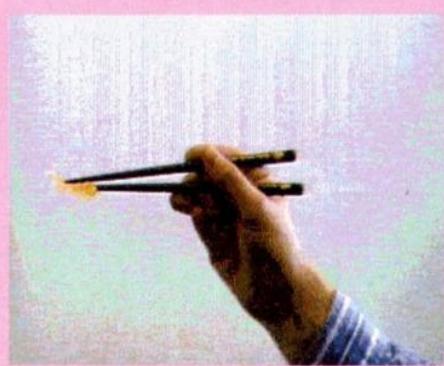


One thing you might be surprised to find out about is the geography of Japan, with its chain of islands.

Writing	Katakana
ンワラ リル レ □コレホント	サカア シキイ スクウ セケエ ソコオ

Press any key..

You can learn the letters of the Japanese alphabet, not just the look, but also the pronunciation.





We chose 'red flowers' from the 'colour' option, 'dry' from the 'conditions' menu and 'sunny' from the 'light' menu, and this is one of the seven or eight choices we were left with. Each of our chosen plants can be viewed as a full-screen digitised image and a whole list of information about it can be scrolled through, including all the advice on planting and nurture that you would need.

NEW BASICS ELECTRONIC COOKBOOK

XIPHIAS

£39.99

THE NEW BASICS ELECTRONIC COOKBOOK

CUSTOM MENU BUILDER

Starting off from the obvious point of being a recipe book, this useful reference work adds all sorts of clever ideas such as organising the recipes by menus or ingredients and nutritional values. What lets it all down with a whacking great thump, however, is the type of illustration used. Instead of being useful photos and diagrams of work in progress, the pictures are utterly pointless: bread, for example, is illustrated with a series of photos of different types of loaf, but with no captions. What a waste of CD's potential! Better presentation could have made this title a real winner, but there's still plenty of useful info in there.

Amiga Format rating 75%

TIMETABLE OF HISTORY: BUSINESS, POLITICS AND MEDIA

XIPHIAS

£39.99

Two discs in this series (a third also exists, covering the arts, but we haven't yet seen it) make an interesting point: while for us, the new medium makes the way information is presented a matter of great importance, but what really counts is the information. An unwarranted American bias makes the historical information contained in this reference work very disappointing to UK audiences. If you're a student of subtle bias and propaganda, then give it a look. Its sister title, by contrast, is quite good. Both discs use a variety of techniques to give you access to topics which, frankly,

AMERICAN VISTA ATLAS AND WORLD VISTA ATLAS

APPLIED OPTICAL MEDIA EACH £54.99

The important part of an atlas is the quality of its maps, and the digitised affairs on these discs are disappointing. What's interesting about these two discs, however, is the contrast between them and the extra ideas that supplement the maps.

The United States atlas is a state-by-state tour and each state has a slideshow of attractive digitised images which go to make up a comprehensive visual tour. These go some way towards making you feel you know the place, as well as providing some surprises. It would be a great way of planning a holiday, as well as providing a good resource for geography teachers in schools.

The World version has less detail on each nation than the US version has on the States, but benefits from some quite excellent ideas. As well as seeing maps and flags and looking at pictures of the scenery, you can listen to the national folk music and learn a few words of the language of any country. Its problem, however, is consistency. Unless you share the views of the authors who decided a particular country was worth scarcely any coverage, you may be a little disappointed. Perhaps too ambitious – maybe a continent-by-continent series of discs, with more details and slightly better presentation, would be a winner.



The basis of the Atlases is digitised maps like this one. They're very large scale.



In keeping with the tourist spirit, the US Atlas includes topographical maps of the states.

Historical Time Line

Death of Mao Afghanistan Invaded

Watergate War in Lebanon Iran Contra Beijing Uprising

Oil Crisis Hostage Crisis in Iran Collapse of Eastern Bloc

1975 to 1977	1977 to 1979	1979 to 1981	1981 to 1983	1983 to 1985	1985 to 1990
-2000	0	1000	1900	1990	1990

don't really help. There's still a long way to go until the world learns how to do multimedia presentation of information properly.

Amiga Format rating 45%

NEW GROLIER ENCYCLOPAEDIA

ELECTRONIC PUBLISHING

£39.99

The common apple, *M. pumila*, one of about 25 apple species, is a small tree with flowers that resemble wild roses. Most commercial varieties derive from the common apple. The United States produces almost one-quarter of the world crop of dessert and cooking apples.

Quite apart from the fact that it does what it should – enables you to look up things to learn more about them – in a straightforward and simple way, this US reference work has one major advantage to its credit. The

producers have employed an artist to originate graphics on the Amiga, meaning illustrations are available for every topic. And it all looks just great. With too many other discs, the illustrations are just thrown in to pad the thing out visually. What a pity that this disc is not available in the UK.

Verdic

Amiga Format rating 84%

TIMETABLE OF HISTORY: SCIENCE AND INNOVATION

XIPHIAS

£39.99

Titles found in search on: nuclear 141 items

1981 SODAR	RETURN
1981 USSR Nuclear Ship	TOP MENU
1981 100 Years of UK Electric	ADD
1982 UK Atom Smasher	I
1983 W and Z Particles	II
1983 JET Fusion Reactor	III
1984 Top Quark	IV
1984 Superdense Matter	V

With less political bias affecting the material, this makes quite a good reference work really, with lots of detail on some of the major discoveries of science through the ages. Perhaps inevitably, most of the emphasis is on the twentieth century. The flashy show-off bits, with real sound and animated video sequences, are very nice, even though most of them are related to space exploration. Inevitably, these tend to grab the attention and leave the text-only stuff looking very drab. Nevertheless, there's still plenty of good info here, making it a handy education aid.

Verdic

Amiga Format rating 70%

continued on page 50

LEARN FRENCH WITH ASTERIX 1 & 2

EUROTALK/MICRODEAL

£34.99 EACH

A digitised cartoon book with narration in French. Essentially all it does is show you the story, narrated by actors, and allow you to play it without words on the screen or without a soundtrack.

This would be a waste of time on its own, but a new dimension is added when you use the VoiceMaster gadget to record your own attempts at speaking French. The mike digitises in your own speech and you can then play it back, next to the original and compare them. It makes an extraordinarily effective way of analysing how good your pronunciation is – or isn't.

The package is surprisingly good. You need both discs for the complete 'Asterix and Son' story, but each disc can stand alone. Also available soon is a Spanish version, and due out soon is another two-disc set in each language based on the Asterix Blaxx Gold story.



84%

VOICEMASTER

A microphone that attaches to the CDTV's serial port so you can record your voice. It's designed for use with the Learn French with Asterix discs.



MICRODEAL £24.99

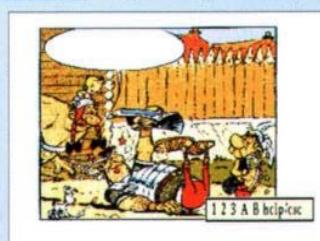
Amiga Format rating 80%



Naturally, for many of us the fun is spoilt somewhat by the fact that it's in French.



So what you want to do is show it frame by frame, listen carefully and repeat.



The frames can be shown without the text in, or watched without narration.



Some frames are less useful to your learning of the French language, though!



The obvious thing to do with this disc is whack it on to play and sit back to watch and listen as the story unfolds. Each frame of the cartoon-book original is represented by a full screen of the disc.

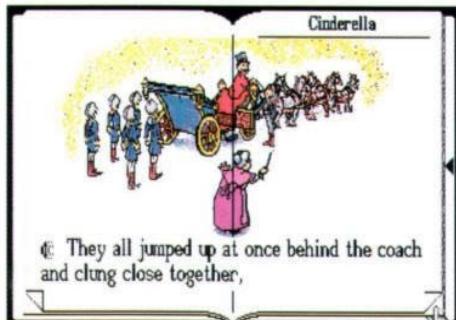
DISCIS BOOKS SERIES

Discis produce digital versions of a number of popular childrens' storybooks, all of which use the same basic system, so before we even start looking at the individual titles, it's worth explaining here how the system works. Essentially, what you have on the screen is the left- and right-hand pages of an opened book. This has the words and the pictures, all digitised in pretty good colour from the original text and illustrations.

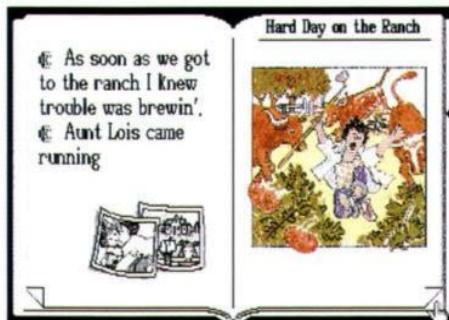
By clicking in the corners of the page you can turn the pages forwards and backwards and a slider at the right-hand side means you can jump around the book several pages at a time. The easiest option is to watch and listen to the whole book: a narrator speaks the story from a hi-fi soundtrack, music plays in the background and the pages of the book are turned automatically. At any time, you can jump in and stop the story, and use the other 'interactive' features of the system.

You can click on any of the words in the text to hear them spoken out loud and you can click on parts of the pictures to have whatever you've clicked on described. An option also means the story to be read in Spanish, America's second language.

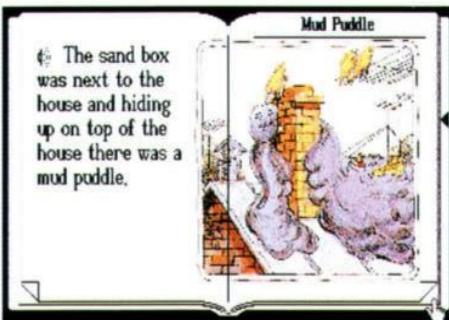
This system is consistently good, though the flaw in seeing delicate watercolour illustrations in a digitised form is obvious. Inevitably, Discis books vary in appeal according to the story.



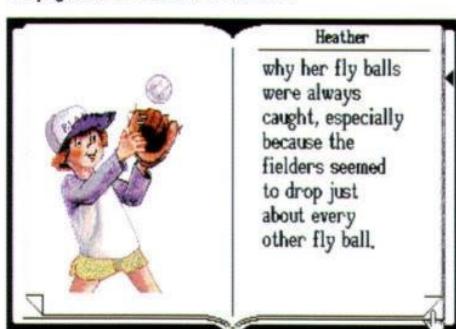
Clicking in the 'dog-eared' corners of a Discis book turns the pages backwards and forwards...



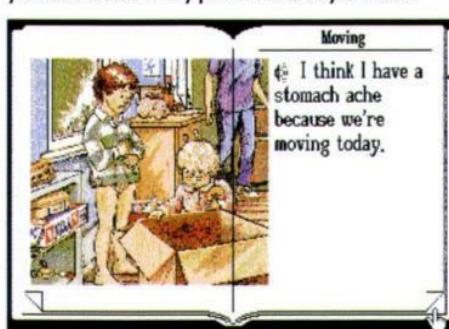
...while the slider at the right-hand edge of the book lets you move around to any part of the book you choose.



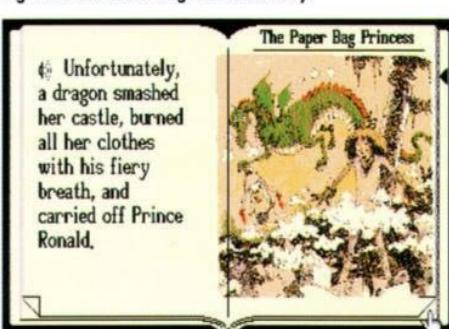
The digitised illustrations are really rather good, reproducing the watercolour originals excellently.



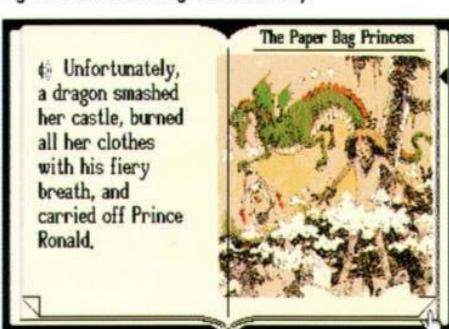
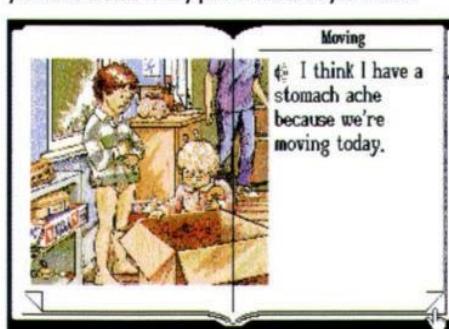
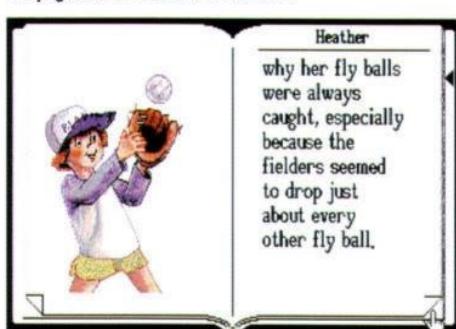
Clicking on words in the text means that word is spoken out loud by the narrator...



...while clicking on the pictures will bring up a one-word description of what you click on, also spoken.



This is our favourite Discis story: Paper Bag Princess, in which a clever girl outwits a dumb (male!) dragon.



CINDERELLA

A particularly wishy-washy and very American version of the fairy tale standard and stuffed with over-pretty characters.



Amiga Format rating 60%

HEATHER HITS HER FIRST HOME RUN

A slightly slushy tale of American kidhood. As if you couldn't have guessed.



Amiga Format rating 62%

A LONG HARD DAY AT THE RANCH

Another title that is just that little bit too sentimental for UK tastes, the tale of a little boy's vivid imaginative exploits.



Amiga Format rating 64%

MOVING GIVES ME A STOMACH ACHE

One of the more charming stories, with particularly lovely pictures, and an educative angle on handling new situations.



Amiga Format rating 70%

MUD PUDDLE

This has to be the best of the titles. Great 'I can relate to that' storyline and mercifully little sentimentality. Yet it's still very cute. So, how did you get covered in mud, then?



Amiga Format rating 70%

PAPER BAG PRINCESS

A great little modernised fairytale with a feminist twist. Compulsory for little girls



Amiga Format rating 70%

SCARY POEMS FOR ROTTEN KIDS

Collection of creepy-crawly rhymes is a jolly little collection. If Roald Dahl is your style of thing, this one should be right up your trouser leg.



Amiga Format rating 75%

TALE OF PETER RABBIT (THE)

This Beatrix Potter classic stays mercifully faithful to the original – even English narration – and needs absolutely no introduction.



Amiga Format rating 70%

TALE OF BENJAMIN BUNNY (THE)

Another relatively unspoilt Beatrix Potter classic.



Amiga Format rating 70%

THOMAS' SNOWSUIT

Sweet American childhood tale that turns, as you'd expect, a little sickly.



Amiga Format rating 70%

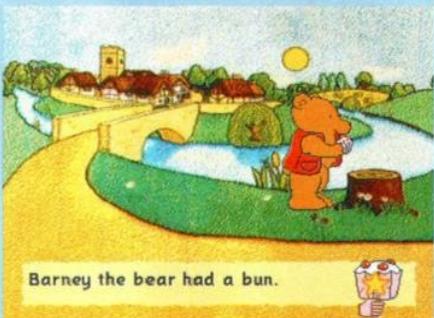
A BUN FOR BARNEY

BBC MULTIMEDIA £34.99

The narration by ex-Doctor Who Tom Baker and the lovely watercolour-like graphics in this interactive children's storybook are the icing on a very tasty cake. The whole idea of interactive multimedia seems to suit children's explorative minds incredibly well.

The idea is that the pointer can be moved around the screen and when it comes to something exciting, it flashes. A click on the button triggers off something almost magical as far as children are concerned – an animation or effect, such as crazed bunnies frolicking about like good 'uns.

Children can proceed through the storybook at their own pace, pausing to click on words on the screen so that they are read out loud. This adds an educational element which is backed up by the plot. The net result is a delightful disc, the only drawback of which is its expense.



One of the best-polished CDs yet, this is an enchanting tale. If you've got kids, use them as an excuse to get it.



79%

ALL DOGS GO TO HEAVEN

MERIT SOFTWARE

£34.99



A colouring book based on the hit Sullivan Bluth cartoon. You flick through the line drawings to find one you like, then pick coloured pens to fill in the areas of colour. Nicely done, but ultimately simple and trivial.



Amiga Format rating 25%

FUN SCHOOL 3 (UNDER 5S)

EUROPRESS

£24.99

A collection of six little educational games which deal with such terribly basic concepts as numbers and letters. Kids genuinely enjoy having a bash at it and can be left to their own devices once they've mastered the mouse. Pity it's a straight Amiga port.

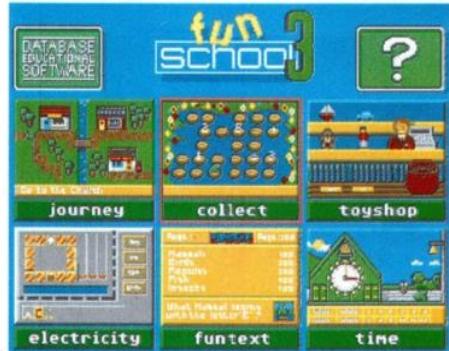


Amiga Format rating 25%

FUN SCHOOL 3 (5S-7S)

EUROPRESS

£24.99



This version of educational games for older kids has some more enterprising ideas, like basic electronics, and more of an emphasis on computer concepts, but overall exactly the same applies as for the Under 5's version above.



Amiga Format rating 70%

BARNEY BEAR GOES TO SCHOOL

FREE SPIRIT

£29.99

This is probably one of the worst programs ever. Three mouse clicks during an allegedly interactive intro get Barney out of bed and into school via a lesson on eating breakfast. At school, he can click anywhere on the blackboard to choose one of three deeply trivial 'educational' sub-games. We haven't seen companion title *Barney Bear Goes Camping* yet, but we don't really want to either.

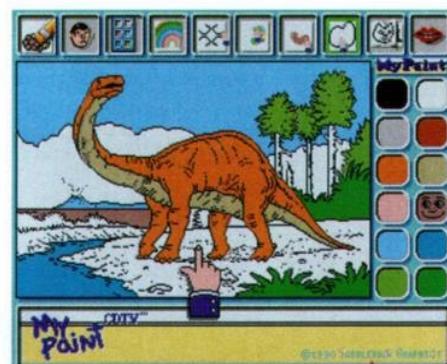


Amiga Format rating 11%

MPAINT

SADDLEBACK GRAPHICS

£29.99



This kids' paint and colouring program *MyPaint* was great in its original incarnation on the Amiga, but fails sadly as a CDTV disc because it's very difficult to draw freely without a mouse. When you use the CDTV remote control, all the lines end up being straight or diagonal. The CD version adds a great many more colouring book ideas, but it has to be said that the original floppy disk-based version was much better, so you'd be wise to go for that instead.



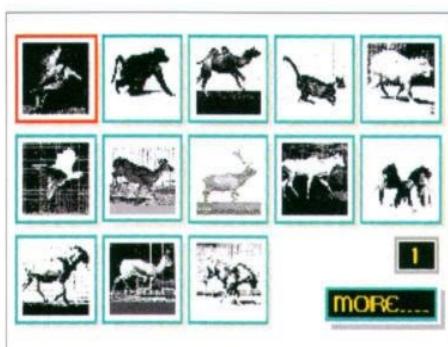
Amiga Format rating 35%

continued over

ANIMALS IN MOTION

ON-LINE

£29.99



MORE....

An enormous library of black-and-white digitised pictures from the works of Eadweard Muybridge, the Victorian photographer renowned for his pioneering studies of movement. Stored as Amiga IFFs and anim files, they make a useful resource for animators.



Amiga Format rating 55%

CD-REMIX 2

MICRODEAL

£29.99



If you've ever fancied creating your own scratch mixes, you'll find this unique music system a treat. It enables you to take audio CDs from your collection and get them to play in loops and sequences so you can come up with your own remixes. It's very clever. The results are fun and effective.

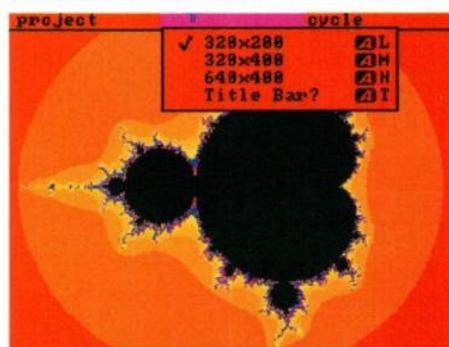


Amiga Format rating 80%

FRED FISH CD-ROM COLLECTION

HYPERMEDIA CONCEPTS

£19.99



An enormous collection of freely distributable public domain software under the familiar Fred Fish name. If it's PD, it's probably here. This is a real treasure trove. This disc comes free with the A570 and also with CDTV from some sources.



Amiga Format rating 89%

MUSIC MAKER

MUSIC SALES

£34.99



Interactivity in the greatest-hits jukebox disc effort *Music Maker* pretty much amounts to pushing a set of buttons to play drum noises along-a-rock stars – ho hum. It's just not much fun for the price of the disk and shows itself up as one of the great mistakes of the naïve CD age.

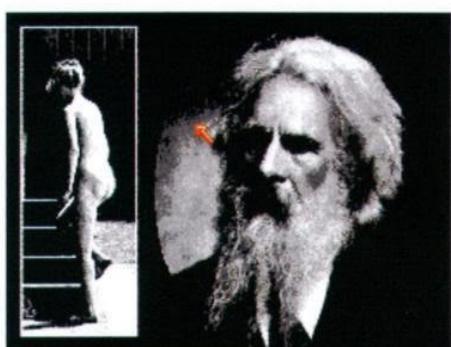


Amiga Format rating 35%

WOMEN IN MOTION

ON-LINE

£29.99



A collection of animated sequences of fat, naked Victorian ladies, taken from photographs by Eadweard Muybridge, who virtually invented freeze-frame photography, but was as mad as a hatter. A useful if eccentric resource for animators.

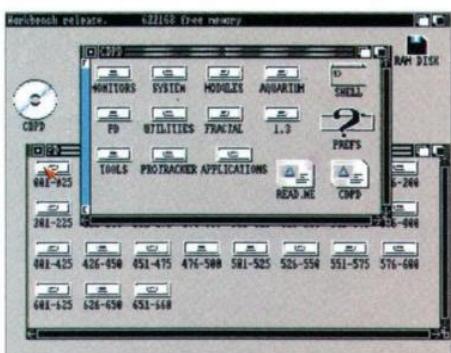


Amiga Format rating 55%

CD-PD COLLECTION

ALMATHERA SYSTEMS

£19.99



Free with the A570, this is essentially a UK licensed version of the Fred Fish Collection on CD-ROM disc. It contains the full contents of 660 Fish disks as well as a number of other utilities, such as music creator ProTracker. It also has Workbench 2 and 1.3 installed, which makes life easier. Just has to be good value.



Amiga Format rating 89%

What to look out for...**BUDGET RELEASES**

Commodore expect a number of the early titles to come out soon at bargain prices and they are actively encouraging a range of £10 budget titles. This could make all the difference, because many titles are overpriced at £30 or £40 currently.

GAMES COMPILATIONS

MicroProse recently announced they would be releasing CDs with two, three or even four games on one disc, though the decision is currently under review. A compilation could store hundreds of games and we expect to see some good, value-packed compilations.

INSIGHT TECHNOLOGY

This 'how it works' book will set a new standard in the use of Amiga graphics, digitised photos and video sequences for all of its 200-odd entries on domestic technology. It should be out in the next couple of months or so.

NORTH POLAR EXPEDITION

A digitised record of Ranulph Fiennes' polar expedition presented as an interactive educational game in which you must help the party survive. It's expected to be an extraordinary event.

There are lots of CD titles on the way, with a total of around 150 on Commodore's current release schedule.

Here's some of the more interesting ones...

MUSICOLOR

A revolutionary system invented to teach music to the musically illiterate by using colour. It could bring out the potential Nigel Kennedy in all of us – if that's a good thing...

LUCASARTS GAMES

Originally *Loom*, *Monkey Island* and *Indiana Jones* were all due for release on CD, but only *Indy* is currently listed. If you imagine what *Monkey Island* would be like with a real audio soundtrack and proper lip-synching to accompany the on-screen dialogue, you have some idea of what wonders LucasArts could work with optical storage.



Two creatures who called themselves Goats were flying the spaceship. They were from a planet known as Gootub. They were very friendly. The Goats liked Alistair very much and wanted to take him home with them.

Children can interact with the story as Alistair is kidnapped by aliens in this educational CD program.

Alistair in Outer Space

Educational CD ■ £24.99 ■ Altered Images

ALISTAIR IN OUTER SPACE
is available from Altered Images
071-934 3456

Illinios Pro

Label printing utility ■ Code Works Software ■ £25.95

ILLINIOS PROFESSIONAL IS a major step on from the PD version, and it's barely recognisable. It's still written using HiSoft Basic, but the entire program has been rewritten and now boasts a number of new functions, including mail merge and the ability to attach IFF images to records.

Unfortunately, it still responds only to the keyboard, with no trace of a Workbench-style interface, and not a radio button in sight. Different sections of the program are accessed by pressing function keys – not very elegant, but it works.

The program includes several example data files, and creating your own files is not difficult. Each record can have a maximum of nine fields, each of which can have a user defined title and be one of six types (alphanumeric, post code, and so on). Data can be sorted from the input screen, or a user defined report can be printed from the data. You can also do a mail merge, which takes an ASCII file and replaces the tokens with the data in the file. This is reasonably useful, but the lack of any formatting commands is a pain. Frankly, any decent word processor will be able to achieve better results.

Once you've input all your data, you will want to print it out. Pressing F5 from the main

menu gives you a screen where you set the various aspects of the labels, including the size, which fields are printed and in what format (such as bold, underline). Setting the criteria for labels is, unfortunately, a question of trial and error, as the configuration files included with the program don't relate to any of the commercial label types available. The measurements are in character widths, which means that measuring a sheet isn't really an option. The best way would be to print out a sheet, and see how many characters each label takes, and what the gaps between them are.

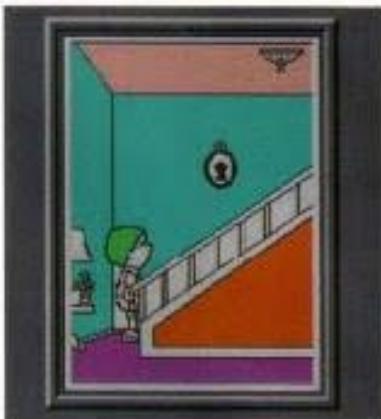
You can also access the Flexi Lab from the printing screen, which is where you can control the output of the individual fields. So, you could print a name in bold outline, and the address in italicised condensed print. That's likely to make the postman blind, but you get the idea. Unfortunately, when you've set some fancy options, you can only print one label across the page, which could be wasteful, especially if you're using commercial labels, which usually come on A4 sheets.

The manual isn't particularly impressive, with no trace of an index. It's not very well written, and has no trace of a tutorial to help a newcomer to the program find their way around. It does have a glossary, but this is

PROBABLY THE MOST obvious application of multimedia is the 'interactive storybook' – a combination of text, pictures and sound in which the reader can take part. *Alistair in Outer Space* is the latest program of this type, and tells the story of a young boy who is abducted by an alien spacecraft before being whisked off into the cosmos and is finally brought back in order to return an overdue library book. Things look questionable already, don't they?

The story itself is pretty poor, but the graphics are fun and a combination of subtitles and speech reinforces the educational element of the whole package, working well in explaining the situations in simple language. It's a sort of Nineties Peter and Jane starring the old Peter. But what's really good about *Alistair* is its interactive section which enables you to click on objects which appear in the scenery of each cartoon frame, producing both a written and spoken representation of basic nouns. On top of that there's also a further section which allows the user to play simple puzzle games that become progressively difficult as you get better at them.

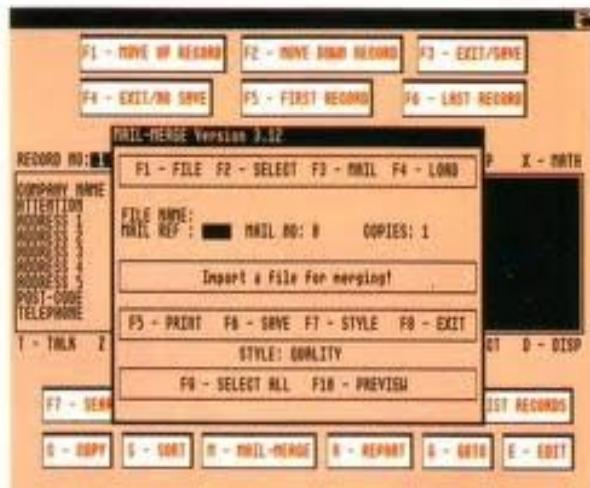
Again, these are to do with the story and clearly the idea of a fun section like this is to keep the playing as well as the learning aspect centred around a common theme. But there's not really a lot here for your money – the main menu is very small and that's because there is simply not much volume to an idea which is quite promising until it's over. What *Alistair* needs to be any good is a well written story,



Get carried away with colouring in. Turn Alistair's hair green, or make the carpet Seventies' mauve.

perhaps in chapters so that it could be lengthy but easy to digest. There are a couple of good concepts – like casting a magnifying glass across each picture to introduce new words, but there aren't enough of them and the story twists and turns too much.

Children need simplicity and a theme that is specific; *Alistair in Outer Space* has potential, but it doesn't have a concept that is thought through well enough. A good attempt for a new programming house, though.



ILLINIOS PRO could hardly be called user friendly, but it's a powerful program nonetheless.

rather minimal, with only one page of terms. Frankly, the only way you are going to find your way around *Illinios Pro* is by experimenting as you go along.

It works, but it's not particularly friendly. Not being able to use a mouse is a pain, and the style of the interface doesn't particularly help you find your way around. Although you can define your own label layouts, some presets for the more common types of commercial labels would be useful.

ILLINIOS PRO is available from Code Works Software 0272 478402

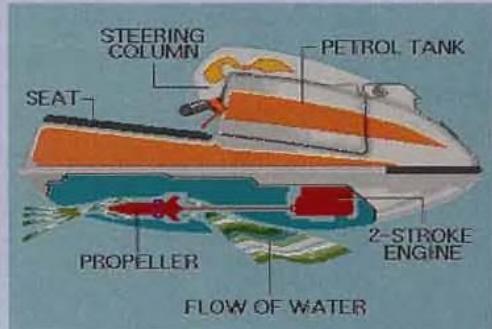


Insight: Technology

CDTV PUBLISHING ■ £39.99 ■ 0628 770088



The topic screen features text that can be scrolled through by highlighting the right buttons; forward and backward buttons to go to the next topics in alphabetical order; and, most interesting, miniature stills from the animation and the photographic slideshow, which you click on to view the piece.



The animations, beautifully created in Deluxe Paint, are an ideal way of showing the workings of a complex mechanical device. In this diagram, water flows and the propeller rotates.



The slideshows, which mostly feature relevant and well-digitised photographs, are accompanied by a narration which tells you a little about the history and the development of a particular invention. All rather entertaining.

The fact that it's got 526 Mb of data stored away and uses a unique technique for loading quarter-screen video footage and audio might not mean anything to you; but the fact that this is one of the best-conceived and best-presented CD titles yet to appear should certainly make you sit up and take notice.

That 526 Mb is claimed to be the largest amount of data yet stored on a useable Amiga CD title, but it's what it's used for that's significant. Optonica have taken the time and trouble to produce a series of lavish illustrations – most of the work done in-house by their own artists – to come up with a disc that actually makes the most of the Amiga's strengths rather than pointing out its weaknesses.

This is the first in a planned series under the 'Insight' name. It's a reference work very much in the *Boy's Own* or *Look and Learn* tradition, which essentially means it's a kind of technical guidebook to the electrical and mechanical apparatus you might come across in daily life. It's not necessarily biased towards a younger viewer, but you can't help but feel it will appeal to the curious youngster.

The authors have picked out 262 'topics' (items for investigation) ranging alphabetically from the aerofoil to the X-ray machine via internal-combustion engines, jet skis and typewriters. Each and every topic is covered by text describing how it works and has an animation illustrating the principles. There's also a slideshow of digitised photographs for each topic, accompanied by narrated background information such as history, and for 35 of the topics there is also a quarter-screen video clip.

Simple enough, in itself. Where this disc scores massive points over those reference works that have come before it is in the thought that has gone into the concept and in the detail of the execution. The idea in itself is considerably more valid than most CD



While it's a shame that the video clips are small and the limited colours makes them look a little strange, they have been handled well. The presentation in a static screen is effective and the clips are on the whole an asset.

MMM

KARAOKE HITS 1
MUSIC MACHINE ■ £19.99 ■
0204 387410

Some have scoffed at the idea of using the CDTV for karaoke, but in actual fact it's a perfectly good idea. For anyone setting up a business in karaoke or wanting to get one in their pub or restaurant, CDTV makes an ideal option because it can handle the graphics as well as the CD-quality audio.

And, who knows, you may even want to sing along at home. I think it's quite mad, but I'm told it's fun at parties. Ho hum.

This disc is sensibly presented, with decent arrangements (without lead vocals, naturally, but with backing singers) of a number of ageing popular ditties accompanied by graphics that are simply the words for

Oh I need you, you need me
Oh my darlin' can't you see

It may look pretty tedious, but the highlighted words work well enough for the karaoke purpose and the plain blue background means you can genlock in video pictures.

the song. New lines appear on the screen at appropriate moments and the words are highlighted as each one is to be sung. What more do you need?

One sensible touch is the plain blue background. Why? Well, it means you could easily genlock a live video signal (or any other kind) into the background, making for much merry fun. Is this why Commodore decided to include a genlock expansion capacity in CDTV – so you can see yourself sing along?

The bottom line is it does the job, so you're going to like this disc if you wanna karaoke and you like the songs. It features 20 hits along the lines of *Oh Carol*, *It's My Party*, *Will You Still Love Me Tomorrow* and *It's Only Make Believe* – so the less I say, the better.

Verdict

AF RATING 75%

reference works. Like the books of this type that are common among eager-minded youngsters, it has an informative purpose – and yet its real appeal is as a darned-good browse. Plus, it's perfect for the sort of technically aware child that will use a CDTV or CD-driven Amiga anyway.

We've made the point before that you might as well use the strong points of the Amiga to good effect in the presentation of CD titles. Optonica have done this beautifully in opting for *Deluxe Paint* animations to illustrate the workings of the various devices and gadgets that this disc covers. Quite apart from looking better than digitised photos, the animations have an appropriate style and feel, very reminiscent of the classic 'how it works' books of earlier generations.

The numerous photographs are well digitised and clear, the text and narration is for the most part informative and interesting. The video clips are still a little unsatisfying but, working within the limitations of the medium, they have made a decent job of integrating quarter-screen video into a polished presentation.

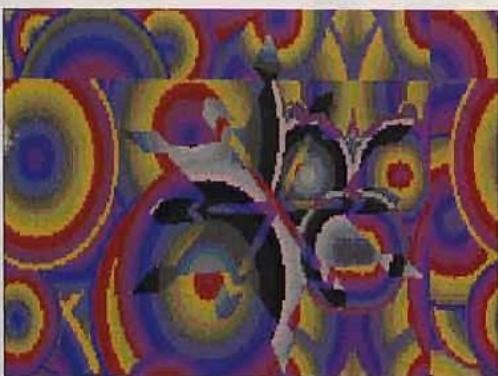
When you're using the disc, you're quite aware that it's been sensibly and simply organised for ease of use, the topics, for example, are selected from a straightforward alphabetical list. You could say that's uninspired, but it works.

It's not a title that entirely lacks faults. Occasionally, the editorial direction wanders a little off the straight and narrow. But these lapses are few and are compensated for by the high quality and high information value of the disc as a whole.

Verdic **87%**



The main screen offers you the options of going straight to the alphabetical listing of topics, or 'browsing' through them in a number of ways. There's also a comprehensive Help facility to help you out.



Wild, weird, ever-changing graphics and some frantic rave music make this an ideal party support device. And you get the game *Top Banana* thrown in, too!



THE DEMO COLLECTION

ALMATHERA SYSTEMS ■ £19.99 ■ 081-683 6418

What a disc! If you've ever taken any interest in the demos scene at all, you'll know what a variety of animations, music and other clevernesses has been spawned in this fertile cultural and creative breeding ground. Which is a posy way of saying the demos scene is packed full of stuff that's fun, entertaining, amusing or amazing – but manages to avoid like the plague anything that you might consider remotely useful. So be it. If you're not aware of the PD demos scene, take a look at the PD Update pages in this very issue. Meanwhile, on with the review...

Following on from Almathera's *CDPD*, a CD-ROM disc which collected all the PD programs and utilities the makers could get their hands on, this disc does a similar thing for the PD demos scene. If comprehensiveness were an end in itself, these guys would have it sealed up – every noteworthy demo from the entire history of *Amiga Format*'s PD Update pages seems to have been included.



This is just the intro screen: fast-moving animation and a choice of tunes. Click to move on...



All the familiar names in PD animations are here, including Eric Schwartz, as well as less well-known items like this.

GLOBAL CHAOS CDTV

HEX ■ £29.99 ■ 0753 686000

Strange ain't the word. This has been described by Hex as 'the rave disc', which is basically what it is. If that means anything to you. If not, then, erm... well, it's a combination of acid-style dance music with 'eternal' non-repeating graphics. It's basically a massive PD music demo with a vengeance.

Put together by the team who first hit the news when constructing music videos, under the name Colcut, for assorted ultra-hip dance acts, this is very much a product of the 'computer punk' generation. You could see it as appropriating and subverting the multimedia form, if you worked on BBC's *The Late Show* arts programme, but really it's just a bunch of guys with a pretty decent sense of good music and wild

Naturally what the publishers take no responsibility for is the quality of the material, but there's some good stuff here. The entire Eric Schwartz back catalogue, for example – which would cost you at least £40 in floppies to get hold of any other way.

Listing the contents would take all day and it's not quite the point – if you buy this, you're almost honour bound to take a 'goodie bag', 'lucky dip' feel to the thing. But there's bound to be some quantity of stuff in there that will appeal to you. Similarly chancy is whether a particular item will run on your machine (some Schwartz anims need 3Mb, for example, which is tricky on a CDTV). But there's so much good stuff in there it hardly matters.

Compendiousness is one of the great benefits of CD storage and this assortment – though it's an obvious idea – is the perfect example of massive data attack. If in the past you've seen two or three demos that appeal to you, you'll almost certainly find this disc worth getting. Oh, and if you're not convinced, there's even some great PD games on there too...



...to the ever-familiar Workbench screen. Here you can see drawer after drawer packed with demos.



There's also a whole drawerful of games, including the classic Space Invaders clone Amoeba Invaders.

visuals having a bit of fun. And fun it is. A number of dance tracks are accompanied by weird, flashing patterns which are semi-randomly generated to give almost endless variation. It's definitely something you could use to give your parties that rave feel. The music's good enough, the graphics are frantic, which is all as it should be.

Thrown in for good measure is Hex's *Top Banana* game, a *Rainbow Islands* clone in gameplay, but with a bizarre and original look that results from its 'sampled' graphics, many of which are highly amusing. The game is fun stuff too. All this adds up to a disc which few enough people will buy, but those who do will enjoy. As artistic expression it should be encouraged.

Just how much PD software does a person need?

Richard Baguley checks out the 17 Bit Collection, from 17 Bit Software and those CD gurus Almathera Systems.

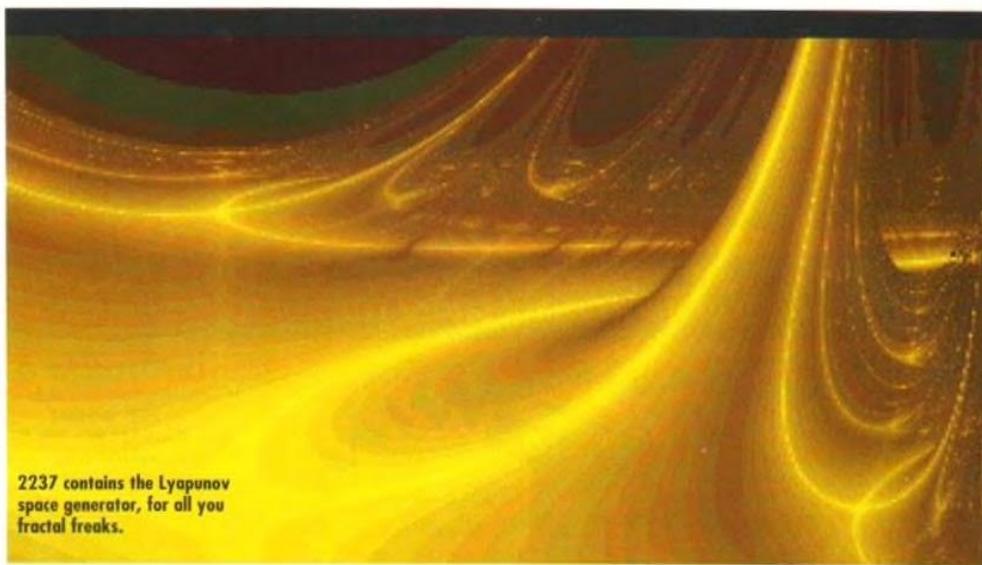
THE CD HAS long expected to be the next great leap forward in computing, but it's been somewhat slow in arriving. Over the past couple of years, we have seen a handful of programs re-released on CD, mostly with only a few enhancements over the originals, and a few rather poor CD-only titles. Nobody really seems to have come up with the kind of application that sends people hurtling to their dealer to buy a CD drive for their Amiga.

Nonetheless, Almathera Systems have been quietly producing quality titles for the last few years. Their last two releases (*CDPD I* and *CDPD II*) brought us the entire *Fred Fish* collection in all its glory.

For their latest venture, Almathera have teamed up with 17-Bit Software, one of the biggest and most widely known Public Domain companies in the UK. The result is the *17 Bit Collection*, two CDs containing every 17 Bit Software disk ever produced.

The statistics which accompany this disk are staggering. The two CDs contain over 2,000 compressed floppy disks (2,301 to be exact), which adds up to approximately 2,000 Mb of data. This information is divided into two, with the first CD containing disks 1 to 1,199 (called 'The Early Years'), and the second ('The Latest Batch') containing the remainder, up to disk 2,301, which was released earlier this year. The contents range from utilities to samples, graphics demos to game cheats.

Many of the demos on the disk use non-standard disk formats, so Almathera decided to compress the disks, using the Public Domain compression utility *DMS*. This compacts a disk down to a single file, even if it uses a



17 Bit Collection

PD CD Collection ■ £39.95 ■ 17 Bit Software

17 BIT COLLECTION
is available from
17 Bit Software
0924 366982

non-standard format. Booting up with either of the CDs takes you straight into a frontend program, from where you can decompress to a floppy disk. Unfortunately, using this technique means that it's impossible to run any of the programs on either of the CDs without first decompressing them to floppy, so CDTV owners will need an external drive.

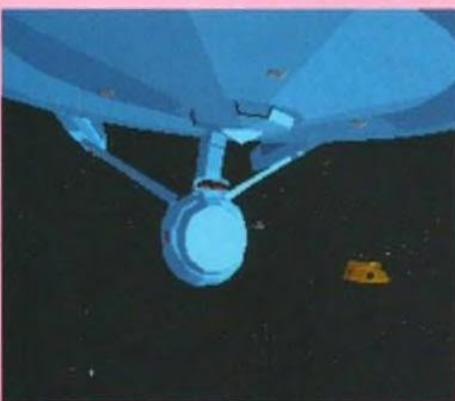
It's also rather disappointing to see that there's no provision in this frontend program for searching for a specific name or title. The only way of finding a specific disk is by its 17 Bit number. If you don't have this number, you will have great trouble finding a disk. These numbers are in chronological order, so if you know roughly when a disk was released, you should be able to find it. The ability to carry out a search for all disks which fit a specific criteria would also be an extremely useful enhancement. The current arrangement is something of a lucky dip. The company recognise this, and both halves of the production team hope to produce an upgrade in the not-

too-distant future which will include a direct search facility.

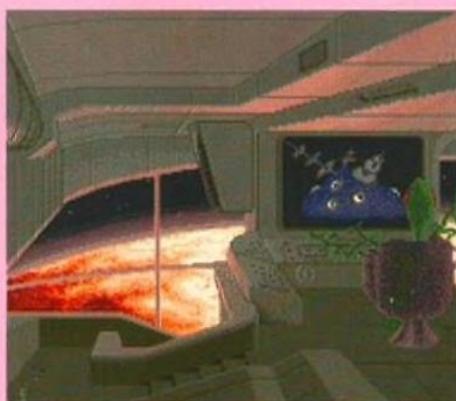
Another problem is the disk descriptions. These seem to have been taken from the company's adverts, and are usually along the lines of 'Another demo from this excellent British demo crew'. Informative they ain't, so once more, unless you know exactly what you're looking for it can be rather like finding a needle in a haystack.

The collection does show the benefits of CDs as a storage medium. This amount of data on floppy disk would take a vast amount of space, and the time taken to decompress the disks is a small price to pay for the space and cost saving over purchasing all of the disks. If you're considering setting up your own PD library, or just want to have a good PD reference collection handy, this is an excellent solution. If there had been better provision for searching the list, or even a printed list accompanying the two disks, this comprehensive collection would have earned a *Amiga Format* Gold. As it is, it's not far off.

HIGHLIGHTS OF THE 17 BIT COLLECTION



Disk number 542 is one of Tobias Richter's excellent animations featuring various Star Trek spaceships.



The first disk produced by 17 Bit was a slideshow including this weird image. It was released way back in 1983.

17 Bit Collection

SPEED

Decompressing takes between two and five minutes, which is not unreasonable.



DOCUMENTATION

There's only a small amount, in the form of an insert in the CD sleeve.



ACCESSIBILITY

Boots straight into the disk copying program, which is easy to use.



FEATURES

No search function in the disk copying program makes finding a specific disk very difficult.



VALUE

At only £40 for over a gigabyte of seriously good software, what else could it be?



89%



Human faces suddenly appearing for no obvious reason are the sort of exciting things you can expect to see when playing *Prey*.

Prey

Almathera Systems ■ 081-683 6418 ■ £25.99

Apparently, asteroid KG - 42 used to be a nice, quiet sort of place to live until the aliens moved in next door. So property prices plummeted, and the aliens eating everyone didn't really help the situation either. The powers that be thus decided to send you in to sort out those nasty aliens once and for all, and to help rescue any refugees you find lying around the place.

Well, at least that's what I assume is happening. This game doesn't come with much information, except for a single paragraph on the back of the CD box. There is an insert, but all this tells you is how to control the game. The controls are pretty minimal, with the usual forward, back and turn, and the two keypad buttons giving a status screen and a map of the area, showing you what to do and the objective.

I know that CD doesn't have the fastest transfer rate known to man, but this game hardly pushes back the boundaries. Each time you enter a new zone, or request the map, you wait at least five seconds for something to appear. I wouldn't mind if the clock stopped, but it doesn't, so just after going through a doorway, you're stuck there waiting, but the clock is still ticking away. With only one minute and 40 seconds of oxygen to start with, every second counts.

Apart from moving around the colony, there is also a combat section where you and an alien slug it out. This uses some nicely treated digitised images to show the aliens, but it doesn't really work, especially with a CDTV keypad. You attack with button A (which has a nice machine-gun sound) and dodge with button B, but this doesn't seem to have much of an effect.

Nicely drawn and rendered 3D graphics abound, and the sounds add to the atmosphere, with heavy breathing and good clunky footsteps as you move down the corridors. If you're really up on sci-fi films, you could also play 'spot the sample' while you're waiting for things to load. Let's start it off with the breathing - from *2001: A Space Odyssey*.

The game is rather similar in feel to *Infestation* (reviewed in AF10), but you don't get the same feeling of being in control. There certainly isn't the same degree of background, and the control method is much more simplistic. There is a good game in there somewhere, but the bad design, long access times, lack of proper documentation and extreme difficulty conspire to make it a game that won't last too long.

Richard Baguley



55%



In the midst of a punch up with an alien in the fight practice screen, which is a question of dodge, dodge, shoot and dodge.

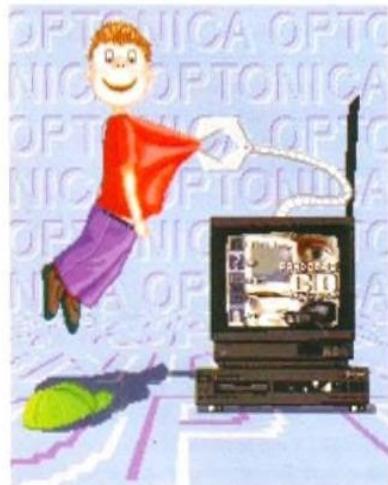


Richard Baguley investigates a multimedia CD that contains over 2,000 pieces of clip art and 99 different sounds. And it's all available for under fiver.

PANDORA'S CD
is available
from Optonica on
0455 558282



If you want to know where to find interesting modern statues in Milton Keynes, the Point of Information demo about the town could be useful.



A still from the rather good animated intro sequence, where a young boy is initiated into the dark rites of CDTVism.



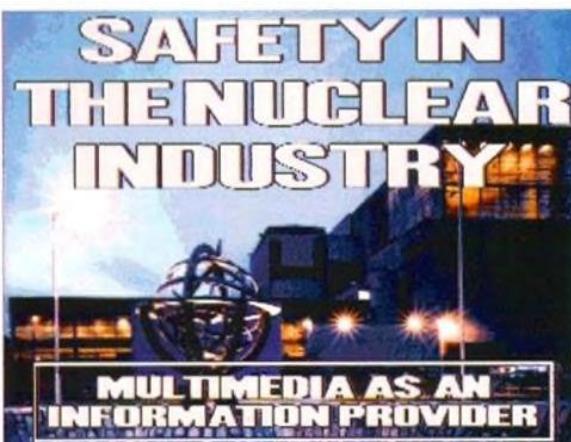
Four music tracks are included on the CD, including one called *Synth on E's* which has an accompanying 15Mb *Vista* animation.

nuclear power stations and Milton Keynes. None of these are particularly huge, but they're all well thought out and show the sort of thing you can do with multimedia concepts and the vast storage space of a Compact Disc. They all include digitised speech and graphics, and some include 1/4 screen video, which is rather effective, especially in the *Insight Technology* demo.

If you're interested in what multimedia can do, and you want a good selection of clip art images, then this disk is well worth investigating. After all, for £4.99, how can you possibly go wrong?



A still from one of the educational games on the disk. This is accompanied by an embarrassing voice saying 'How many plums can you see?'.



Now I could put something witty in here about nuclear power and safety. But instead, I'll just say this is from one of the multimedia demos on the disk.

Pandora's CD

It's a good demo CD, and over 2,000 clip art images and 99 sounds can't be bad for a fiver. Some of the interactive multimedia programs are quite interesting, if you're lucky (sorry? - Ed) enough to live in Milton Keynes.



87%

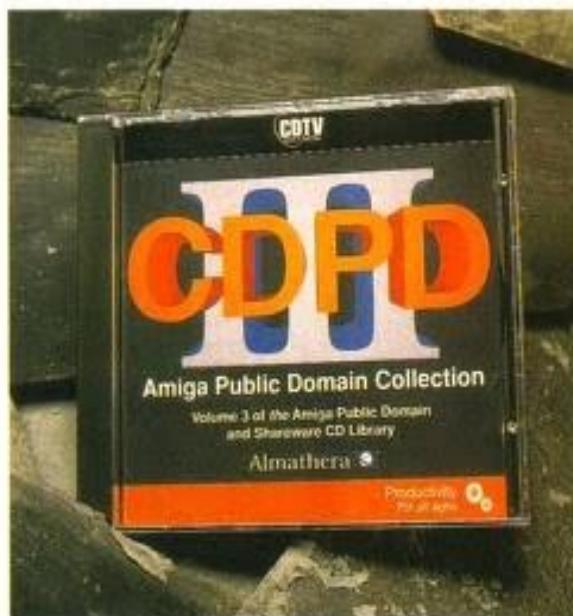
Some people may be overwhelmed at the thought of 600Mb of files, but Richard Baguley can easily cope with the latest offering on Compact Disc from Almathera systems.

THIS IS A big CD. Not in the physical sense, as it's the same 5.25-inch diameter as the rest of them. But if you stick it in your CDTV, A570 or CD³² you gain access to a whole new digital world, filled with such wonders as the complete text of Herman Melville's epic book *Moby Dick*, a selection of DEM files for use in fractal landscape programs such as *Vista Pro* and *Scenery Animator*, and many more.

Almathera have been quietly producing some excellent CDs over the last few years, and this disc certainly won't do anything to tarnish their reputation. The other discs have had a specific theme, but this one is a bit more, erm, 'free form', with a wide array of files.

There is no specific subject and a compendious range of files have been included. CD³² compatibility is also an important factor, but fortunately Almathera have included three versions of Workbench (1.3, 2.1 and 3.0), which means that this disk will work on a CDTV, A570 CD add-on and CD³². When you boot up with this CD, it automatically detects what machine you are running on, and loads the appropriate version of Workbench. Neat huh?

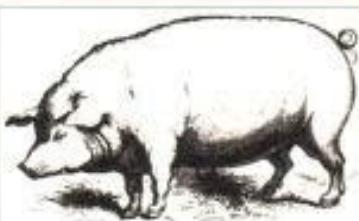
Also included on the disc is the *ParNet* software, which enables you to link together two Amigas via a special lead con-



The Almathera Systems CDPD III is packed with all sorts of goodies from classic books to pictures of pigs, clip art and a whole host of fonts.

CDPD III

I've got absolutely no idea what this image is about, or of whom it is, but it's available in ECS, AGA and 24-bit modes on the CDPD III disc.



Among the compendious clip art section of the disk are some good animal images. A huge range of other images is also included.

CDPD III CONTENTS

This CD contains a bewildering variety of files. Here's a quick rundown of how much of each type of file is on the disc.

BOOKS - 63Mb of ready compressed Fred Fish disks, ready archived for use on a Bulletin Board System.

CLIP ART - 12.1Mb of black and white clip art on subjects ranging from animals to people.

FONTS - 5.2Mb of Compugraphic, Postscript and Amiga bitmap fonts to add style to your DTP.

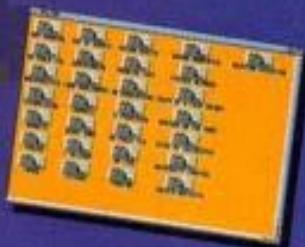
FISH - Fred Fish disks number 761 to 890. A collection from this famous library in a ready-to-run format.

IMAGES - 128Mb of 24-bit, AGA and HAM images ready for use in DTP or image processing programs.

PD - 135Mb of PD programs on subjects ranging from AGA utilities to virus checkers.

VISTA - More than 30 Vista DEM files of various areas of the United States, including Honolulu and the Indian Hills.

CDPDIII



DESCRIPTION
Public Domain Compact Disc

MANUFACTURER
Almathera Systems

DISTRIBUTOR
Almathera Systems 081-683 6418

PRICE
£19.95

RELEASE
Out now

ACCESSIBILITY
Versions 1.3, 2.1 and 3 of Workbench are included on the disc, so you can just shove it in your drive and go. Also included is the ParNet software, so you can connect two machines together.

CONTENT
Plenty of variety, with files ranging from copyright free books to fonts to compilers, via Fred Fish disks, clip art and Vista files.

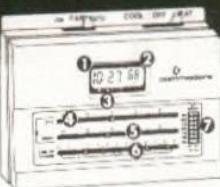
VALUE
600Mb of seriously useful stuff for only 20 quid can't be bad. Expect to see this CD soon on a BBS near you.

VERDICT

"A somewhat weird, and often intriguing, mixture of files, but it's a good source of clip art, and would be a good disc to stick on a Bulletin Board System. Good value."

85%

New Commodore Programmable Thermostat



New space-age technology can be put to work right in your home or offices to save money on your heating and cooling bills and to save energy — with the computerized Commodore Microelectronic Thermostat.

Whether your heating-cooling system uses natural gas, oil, electricity, or any other fuel source, this unique set-back thermostat will save you money.

Easy to install — using only a screwdriver!

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Tax deductible — qualifies for tax credit, save 10% of purchase price!

See the Commodore Micro Electronic Thermostat today!

SIZE: 15" X 30" X 5 1/8". Works with 24 volt AC systems (Do not connect to 110 volt power). 15 amperes to 1.5 amperes, 60 cycle. Compatible with both 3-wire and 4-wire systems. Warranty: One year limited warranty.

Want to know what the next Amiga will look like? Check out this ancient Commodore advert from the latest Fred Fish disc.

FRED FISH

FRED FISH ■ PD SOFTWARE 0702 466933 ■ £19.99 ■ OUT NOW

NOTED AMIGA PD

librarian Fred Fish recently decided to move his entire collection from floppy disk to CD and to bring out a new disc each month. This, the second, was due to be released before Christmas but because of a nasty file virus Fred decided to withdraw it and destroy all stocks.

Anyway, this is December's offering and it sports some rather nice holly decorations. The disc contains about 107Mb of new material from mode promotion utilities (which make badly-behaved programs work on your AGA machine) to programs to calculate the running-cost of your car. Also included are 215Mb of tools such as compilers and text editors. Because of the continually-updated mix of old and new material you should be able to buy every second disc without missing anything.

As usual, there is an immense range of data on the disc, from business software to utilities, all of which is held in both compressed formats, which are designed to be used with a Bulletin Board, and uncompressed formats, which allow you to run the programs direct from the CD.



Finding a specific file on the Fred Fish CD is easy thanks to the excellent database on the disc.

VERDICT

"Fred seems to be making the transition to CD well, and this disc should be useful for new PD libraries."

85%

CD COLLECTIONS

PD CDs are here! And the plummeting costs of CD drives means more of you can afford to dabble with them.

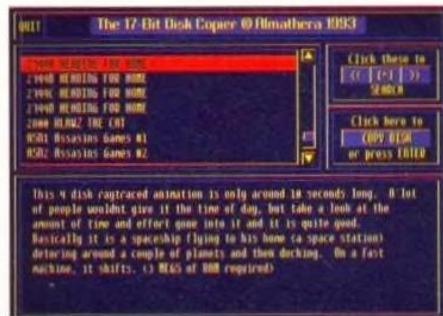
Richard Baguley looks at four of the newest PD CD releases and the latest in the Insight series from Optonica.

17 BIT CONTINUATION DISC

ALMATHERA ■ 17 BIT SOFTWARE 0924 366982 ■ £19.99 ■ OUT NOW



Disk 2782 is Welcome to the Machine which contains four extremely good animations by Poob productions.



The third CD of the 17 Bit PD collection contains up to floppy disk 2880 as well as the first 140 programs from the Assassins game disk collection.

THE 17 BIT collection was reviewed in AF48, and was awarded a highly commendable 89 per cent. Despite the excellent content it was marked down a little because of the lack of a search facility, which meant that it was impossible to find a specific program unless you knew the entire 17 Bit catalogue off by heart.

This new disc not only contains the contents of all the new floppies in the compendious 17 Bit collection, but also has that search facility. This is a simple keyword search, but many of the disc descriptions, which the program searches through, are pretty minimal, with the worst being



comments like "A great disk". All of the programs are squashed using the same DMS compression program that we use on the *Amiga Format* Coverdisks, so the programs need to be uncompressed onto a blank floppy before use. This means that CDTV and CD³² users who do not have a floppy drive will be unable to use this disc, but it makes it ideal for use on a Bulletin Board.

This disc holds numbers 2300 to 2880 of the 17 Bit collection as well as numerous other compilations such as disks one to 115 of the excellent Assassins games disk collection, disks one to 120 of the Assassins legal tools utilities collection and several smaller collections such as the Tampa Bay Amiga Group programs.



All of the programs on the CD are held in compressed format but (assuming you have a floppy drive) expanding them onto a floppy disk is extremely simple.

VERDICT

"A good collection. The inclusion of an index for the first two 17 Bit discs is extremely useful."

91%



FOR THOSE OF you who haven't yet discovered the manifold delights of modems and the Internet, Aminet is a series of computers around the world which hold an absolutely vast range of Amiga files and programs.

This Aminet CD contains the contents of these archives up to July 1993 so there is an immense number and range of files. These are divided up into a variety of topics such as business software, developers' software, pictures, graphics and numerous others.

This is certainly the most wide-ranging of the CDs reviewed on these pages and contains thousands of files. However, some of the files are fairly old and may not work on a modern Amiga and some of the programs have been superseded by newer versions, but if you have the compatible hardware this is an extremely useful disc.



AMINET CD

WALNUT CREEK ■ PD SOFT 0702 466933

■ £19.99 ■ OUT NOW

The Aminet CD includes some excellent ray-traced images by the noted PD artist Guardian, as well as many other artists.



Having trouble getting to grips with DPaint IV? Check out this Amiga Guide help file, which is filled with useful hints and tips.

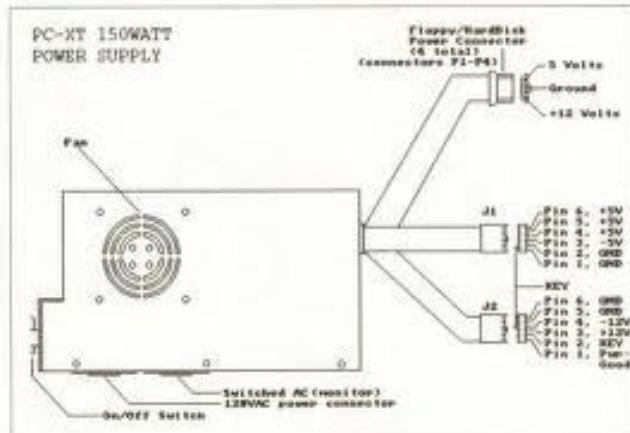
VERDICT

"An immensely useful CD, containing a huge number of files, although some of them are out-of-date."

90%

THE FIRST AMUC CD

AMUC 0101 403 242 2507 ■ £20 ■ CDN ■ OUT NOW



Fancy fitting your A500 into a PC tower case? Check out the file A500tower.lzh on this CD for full (if somewhat warranty-invalidating) instructions.

AMUC is a prominent group of Amiga users, based in Calgary, Canada, and this is their first disc. Based around the contents of their popular Bulletin Board there is no particular theme and the disc contains everything from hardware projects to clip-art. Highlights of the disc include several hundred Imagine objects (which will probably find their way on to Spong! the AF Bulletin Board fairly quickly) and a number of files detailing complex (and possibly explosion-inducing) hardware projects such as a budget 8Mb RAM expansion and a DIY hard disk interface. This is a curious collection, but there is enough material to make it useful. For instance, this is the only CD I've seen with a section dedicated to ARexx scripts. Contact AMUC at PO Box 3420, #19-1200 37th St SW, Calgary, Alta, Canada T3C 3W2.

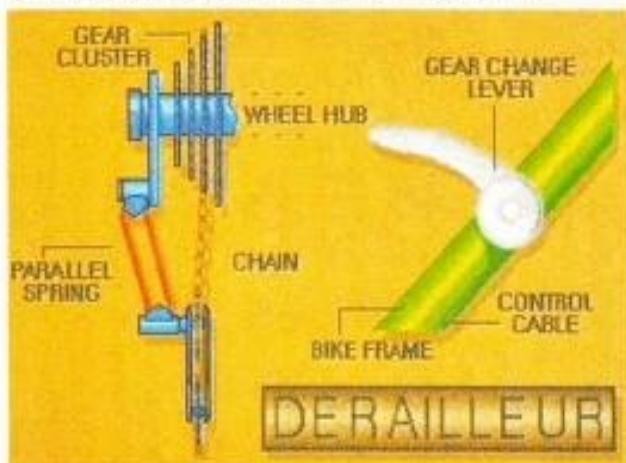
VERDICT

"A generally useful CD, although it is biased towards specific areas of Amiga use."

80%

INSIGHT TECHNOLOGY

OPTONICA 0455 558282 ■ £33.95 ■ OUT NOW



From corkscrews, to water closets to CDTV, Insight Technology is a mine of information. The sounds and pictures, make it a true multimedia

This commercial package provides an informative journey into the world of general knowledge. And as you can drop in on topics from electric windows in cars, through corkscrews, to spacesuits, you are bound to discover something you didn't know before. Whether the snippets will enrich your life, though, is another matter. So who is it aimed at then, this talking encyclopedia? To be honest, I'm not too sure, although it's probably the younger generation.

As a package, Insight Technology is reasonably well put together. Information is imparted clearly by means of sound, images, video and text. At choice moments the narrator lets out a small chuckle, probably to emphasise what a nice bloke he is.

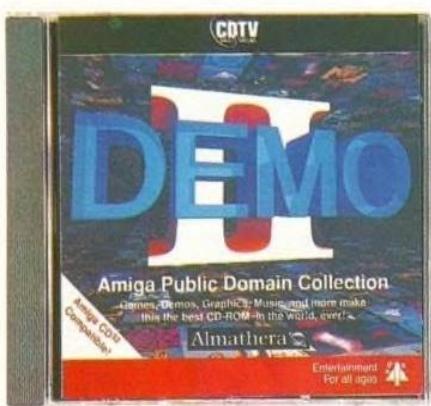
VERDICT

"An informative if slightly flawed system which is enlivened by the included video clips."

75%

Demo Collections

Huge demo collections are now available on just one CD. Here we rate and review all the top discs.



Demo I/Demo II Collection

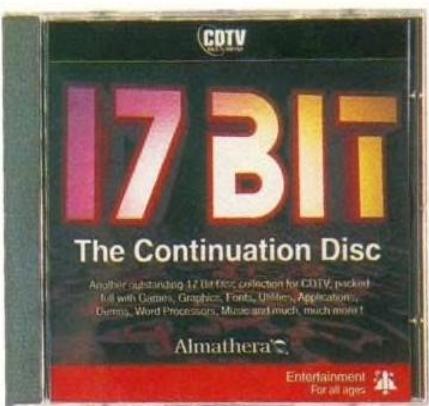
Almathera Systems ■ 0181 687 0040

■ £19.95

Aimed at users that want to get their hands on huge amounts of Public Domain software without having to spend a fortune on floppy disks, Almathera's two demo CDs contain a pot pourri of quality PD material including over 100 games, animations, thousands of IFF samples and sound modules, demos and IFF images.

The only real problem with these two discs is their age - launched early last year, many of the programs are now showing their age. If you want more up to date stuff, Almathera's *EuroScene* CD is probably a better bet. As a grab-bag of Public Domain goodies, however, both of the discs are still worth consideration.

72%



17Bit Collection Continuation

Almathera Systems ■ 0181 687 0040

■ £19.95

Premier Public Domain suppliers 17Bit Software have teamed up with Almathera Systems to produce these two CDs. Volume One contains two CDs crammed with 17Bit Software's earlier Public Domain releases including many classic games and animations.

To help you access the programs, Almathera use a special front end that transfers the programs on to their own self-running floppies. As 17Bit's catalogue grew, the 17Bit *Continuation Disc* was released which contains most of their more recent material plus the Assassins, Amigan, ARUG and N.Z archives. If you enjoy 17Bit's disks, these discs are a must.

82%



EuroScene **AMIGA FORMAT GOLD**

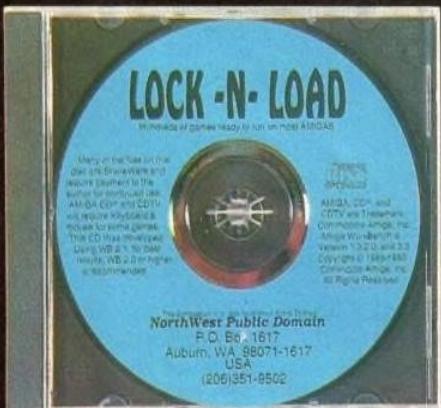
17Bit Software

■ 01924 366982 ■ £14.95

If you want to get your hands on the very latest demos and animations then Almathera's new *EuroScene* CD is definitely for you. Designed as a showcase for European demo programming talent, *EuroScene* contains some of the best Amiga demos released over the past few months including some which probably haven't made it into UK PD libraries.

If you're a follower of the exploits at demo parties then you'll be pleased to learn that the disc contains all the best demos from such events. PD fans will find plenty of interest too because the *EuroScene* disc contains music modules, demo coding utilities, Workbench tools and other productivity software.

90%



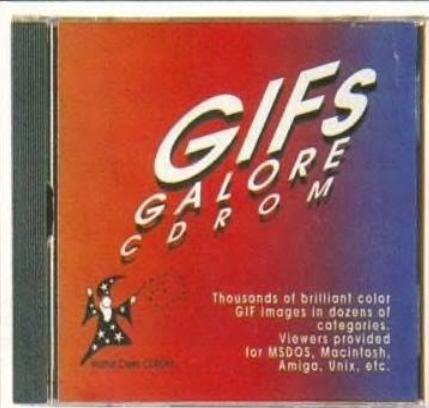
Lock 'n' Load

17Bit Software ■ 01924 366982

■ £19.95

For the slightly less than serious CD-ROM fan, *Lock 'n' Load* contains about 1,000 great (and, it has to be said, not so great) Public Domain games including many classics and some new games that never made it to these shores. Designed to run from Workbench, some of the games don't work unless you boot from the *Lock 'n' Load* disc, although it's fairly simple to get them running.

84%



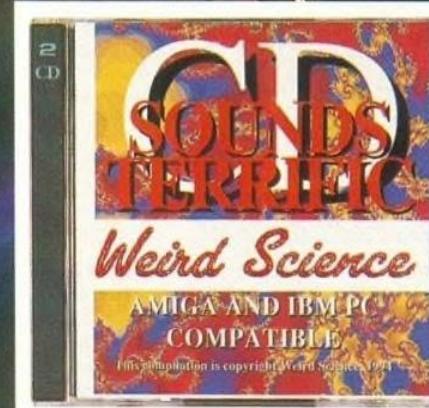
GIFs Galore

17Bit Software ■ 01924 366982

■ £19.95

If you have an image processing program or a PD utility capable of reading GIF format images then this should be of interest. Walnut Creek (the guys behind the disc) include utilities for viewing the 5,000 full colour images spanning such diverse subjects as abstract art, birds, cartoons, frogs, young women in swimsuits, and so on. All images are scanned in 256 colours.

84%



Sounds Terrific

17Bit Software ■ 01924 366982

■ £19.95

This two-disc set from 17Bit Software contains over 1.2 gigabytes of music-related programs and files. Pitched at the Amiga and PC, not all the files are of use to Amiga owners, but the majority have an Amiga bias. The first disc is packed with Amiga IFF samples and music programs such as Protracker and the second contains a huge selection of music modules.

80%

Fishing For PD

Fred Fish is one of the best-known PD names and with more than 1,000 floppy disks, the collection is now available on CD.



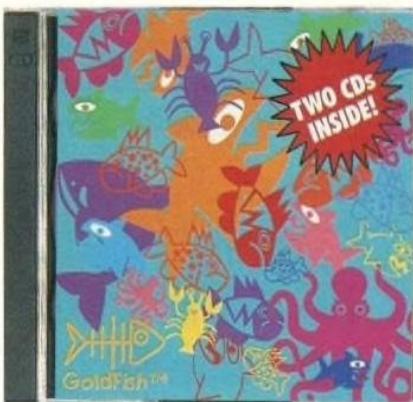
Frozen Fish

PD Soft ■ 01702 466933

■ £19.95

Packed with almost 650Mb of PD material, this CD represents perhaps the definitive Fish collection. Lurking on the disc you'll find all 1,000 of Fred's disks, archived for quick and easy extraction. If this wasn't enough, Fred has also included a vast range of extra PD submissions which haven't quite managed to make their way on to the Fish disks. And on top of all that there's a full collection of include files, development tools and libraries for programmers, CD-ROM tools and various other useful bits and pieces. Sysops should love this one!

88%

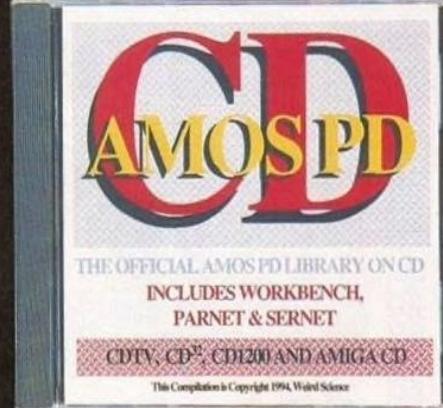


Gold Fish

PD Soft ■ 01702 466933 ■ £29.95

What do you get if you take the *Frozen Fish* CD and combine it with an additional disc that contains those same Fred Fish disks in unarchived format? You get PD Soft's *Gold Fish*, that's what. This two-disc pack contains all 1,000 Fred Fish disks in both archived (ideal for BBS Sysops) and unarchived formats. Although you're not getting anything that isn't already offered by the *Frozen Fish* collection, the convenience of having the programs in both formats makes the collection well worth the extra money. It should be of special interest to beginners.

92%



AMOS PD CD

17Bit Software

■ 01924 366982

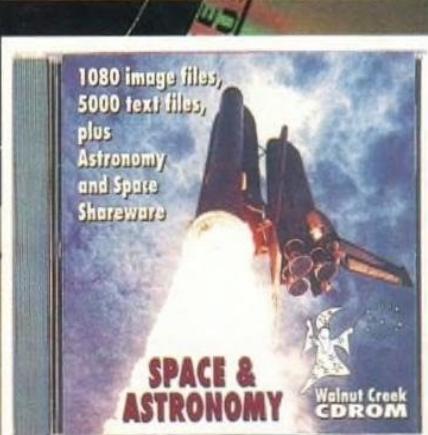
■ £19.95



If you're an *AMOS* programmer then this is one CD that should be at the top of your shopping list. Containing the entire range of disks from the official *AMOS* Public Domain library, the *AMOS PD CD* is perhaps the greatest collection of *AMOS* files ever compiled. Hidden away within the many directories you'll find more than 1,600 *AMOS* source code files, 100 Sprite Banks, 250 CText Banks (colour fonts), 800 useful game-related sound samples, music banks and so on.

Some of the source code and demonstration programs are less than impressive but a fair selection of real gems can be found if you persevere. Not only will you find the utilities useful, but less experienced coders should learn a trick or two from the included source code. The range of PD graphics, sprite banks and sound samples are an absolute boon too if you're not too handy with the more aesthetic side of programming. For *AMOS* coders everywhere, this CD is a must.

92%



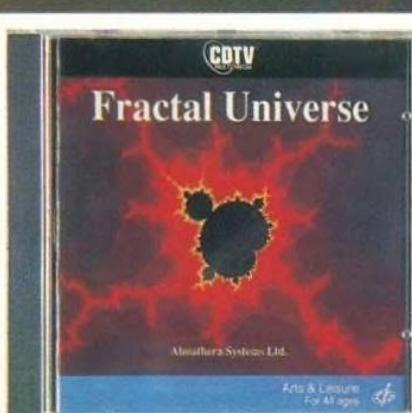
Space & Astronomy

17Bit Software ■ 01924 366982

■ £19.95

Walnut Creek's disc contains more space-related information than the average encyclopedia. For the serious astronomer, there are 5,000 text files covering such diverse subjects as asteroids, astronauts, NASA news bulletins, the Usenet sci.space archives from the Internet and all the NASA press releases since 1962. There's also more than 1,000 image files.

74%



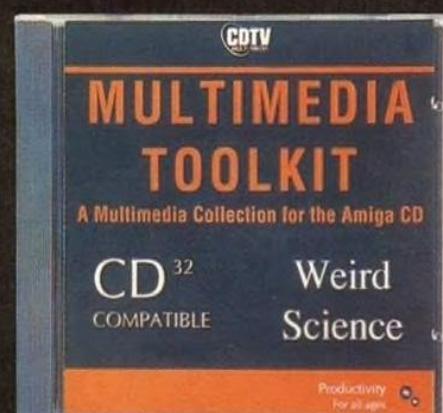
Fractal Universe

Almathera Systems ■ 01924 366982

■ £19.95

Although it's quite old, this disc provides a fascinating insight into fractal generation. There's a large selection of pre-rendered fractal images and you can render your own with the Mandelbrot generator included. *Fractal Universe* is odd in that it is neither a reference title or a PD collection. Fractal nuts will love it but the rest of us may be left rather cold.

54%



Multimedia Toolkit

Almathera Systems ■ 01924 366982

£19.95

The *Multimedia Toolkit* actually has very little to do with multimedia. Instead, it's a huge collection of resource files including 500 original images in 24-bit, HAM8 and HAM format, more than 3,000 clip art files, hundreds of CompuGraphic, Type 1, Postscript and bitmapped fonts, 750 music modules and 2,000 sound samples. This wide-ranging collection of files provides an excellent selection of Amiga-related support programs.

86%

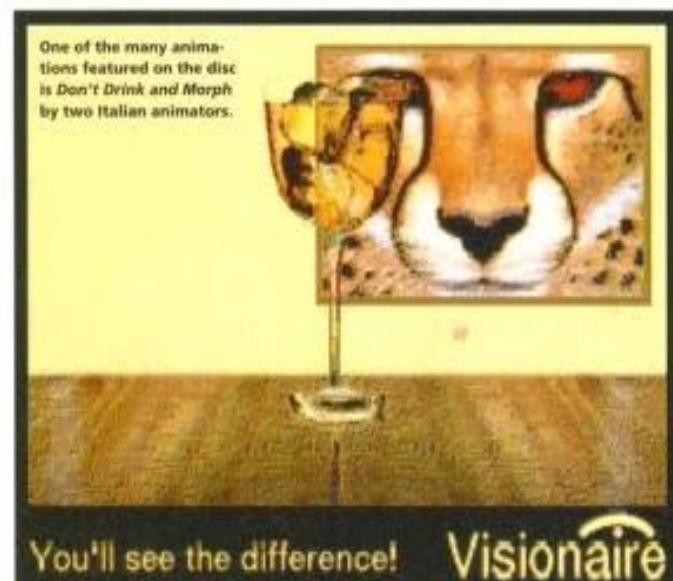
THE DEMO II CD

Richard Baguley checks out two new CDs. The first is packed with games, demos and utilities...

THIS MIXED BAG of demos, games, clipart images and samples contains thousands of programs, utilities and pieces of artwork, so as you would expect, the quality varies immensely.

There are more than 70 demos, on the disc, but unfortunately all of the classic ones are missing. None of this year's top 10 demos are present (see Demo Zone, page 218), and many of the ones that are included are not overly inspiring. This may have something to do with Almathera's decision not to feature any demo that contains bad language, which instantly eliminates well over half of those released.

Fortunately, there is far more to the disc than just demos. There are more than 2,000 SoundTracker songs which you can load and edit using



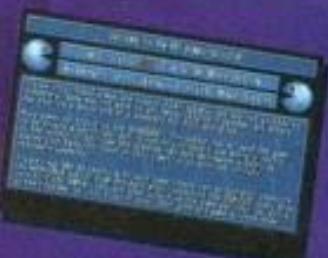
You'll see the difference! Visionaire

one of the many versions of SoundTracker included on the disc. The disc also contains hundreds of clipart images, more than 100 PD games and over 6,000 samples. Not everything is of a high standard, but there are enough pearls among the swine to make this a worthwhile collection. Among the high points are the excellent *Insectoids 2* game and a

number of scanned photos of flowers. All of the clipart is held in HAM, AGA and 24-bit format.

With so many files, finding a particular image, song or sample can be a real struggle and finding pictures is even worse. Although this is undeniably a great source disc, it is let down by the fact that it's so difficult to find your way around it.

THE DEMO II CD



DESCRIPTION
Public Domain Compact Disc

MANUFACTURER
Almathera Systems

DISTRIBUTOR
Almathera Systems
081-687 0040

PRICE
£19.95

VERDICT

"Although there's a huge collection of files, finding the ones you want can be a real struggle."

85%

Multimedia TOOLKIT

...And the second is full of graphics, ranging from Old Masters to the Signs of the Zodiac.

LIKE THE ALMATHERA

disc reviewed above, this CD-ROM is designed to act as a source disc for people who want to create their own multimedia programs, or simply for those who just want easy access to a few graphics.

The disc contains a wide selection of images (in HAM, HAM8 and 24-bit format), a large collection of songs (mostly SoundTracker ones), as well as about 2,000 samples of subjects ranging from animals to weapons, examples of black and white, colour and EPS clipart on subjects ranging from aircraft to Signs of the Zodiac and many utilities.

Also included on the disc is the Multimedia Toolkit program, which enables you to examine the various types of file on the disc with only a few mouse clicks. There is a good range of useful files, but there are



The Multimedia Toolkit contains a wide selection of images in HAM, HAM8 and 24-bit mode. This one is *Venus Rising* by Italian Renaissance artist Botticelli.

two serious omissions: ParNet and Workbench. If ParNet had been included you could access the disc from another machine via a special lead in the parallel port. It is still possible to run ParNet, but you will need an external floppy drive connected to your CDTV.

The absence of Workbench means that you're restricted to using

the Toolbox program to access the data on the disc, and you can't get to Workbench at all without using an external floppy drive or an existing ParNet link.

There are some good files on the disc, but it's not as well put together as the Almathera CD titles, which makes getting to the good bits an unnecessarily complex process.

MULTIMEDIA TOOLKIT



DESCRIPTION
Public Domain Compact Disc

MANUFACTURER
Weird Science

DISTRIBUTOR
Weird Science,
1 Rawlandson Close,
Brackenhurst Chase,
Leicestershire LE4 2SE

PRICE
£19.95

VERDICT

"A wide selection of images, but it's a shame that Workbench and ParNet are not included."

75%

CD-ROM round-up

The number of Amiga CD-ROM releases is increasing every month. Jason Holborn was there to meet the new arrivals and put them through their paces.

The Assassins Collection

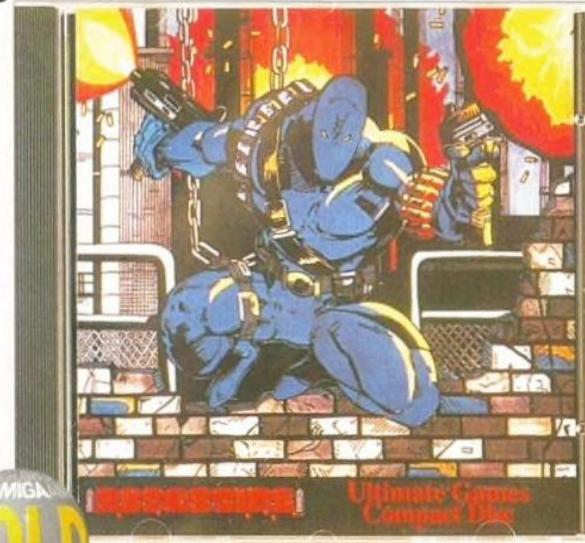
£19.99 ■ PD Soft ■ 01702 466933



Over 600Mb of pure entertainment await you on the *Assassins* disc, according to the title screen. It's not wrong, you know.

Amiga CD-ROM titles have often been less than user friendly – unless you happen to know AmigaDOS inside out – and beginners generally need not apply. *The Assassins Collection*, however, is the exception – every single aspect of this excellent disc is highly polished and oozes complete professionalism.

Even the greenest beginner can load and run any of the games from the MagicWB icons and custom Interplay-



generated menu system. Many of the games are specific to this collection, so there's plenty to keep even the most hardened Public Domain games fan happy. *The Assassins Collection* is certainly the pick of this month's CD-ROM offerings. Buy it now.



There are games for every occasion on the *Assassins* disc, which features the contents of 200 floppy disk releases.

"The best collection of Public Domain games on CD-ROM. Get it now!"

95%

ULTIMEDIA

£29.99 ■ PD Soft
■ 01702 466933

If you're a multimedia or desktop publishing fan then this CD-ROM collection from PDSoft should be of interest.

For your £30 you get two CD-ROMs containing lots of GIF format images, textures, animation files and sound files. Sadly, the animations and sounds are not stored in native Amiga file formats although the discs include Amiga utilities (converters and players) to handle the PC .FLI and .WAV file formats.

For the vast range of high quality images alone, *Ultimedia* is worth checking out.



Ultimedia is packed with the sort of quality images DTP-ers dream of.

"Ultimedia is a good source of multimedia and DTV files."

82%

FRESH FISH VOL 7

£19.95 ■ PD Soft
■ 01702 466933

Normally, I'd be very enthusiastic about a new Fresh Fish CD-ROM but it's hard to get excited about *Fresh Fish Volume 7* because everything on this disc can also be found on *Gold Fish 2*, which also features hundreds of megabytes of software that you won't find on *Fresh Fish 7*. I guess it's simply a case of bad timing. Even the content is unusually weak – unless you're a GNU fan, the disc's 109 new programs hardly justify the £20 price tag. Get *Gold Fish 2* instead.



65%

Gold Fish 2

£29.99 ■ PD Soft
■ 01702 466933

Fred Fish's *Gold Fish* CD is generally regarded as the best PD CD-ROM title you can buy for your CD-equipped Amiga so I was pretty excited when *Gold Fish 2* arrived. *Gold Fish 2* is not simply an update of Volume 1, but a totally new collection of PD. The two discs contain all the new PD programs released on *Fresh Fish Volumes 1* through to 7 (550Mb of it!), GNU libraries, CD-ROM admin tools and so on.



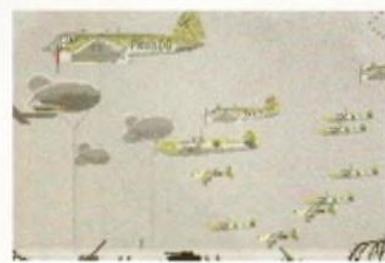
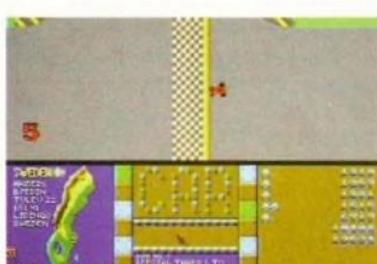
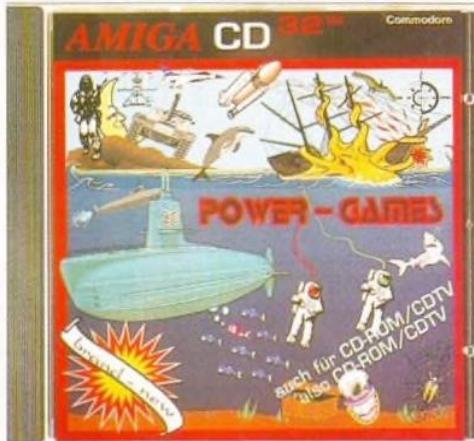
One of the pictures from the art section on the impressive *Gold Fish 2* disc.

Power Games

£19.99 ■ PD Soft
■ 01702 466933

PD game compilations are a popular choice with both Amiga CD-ROM fans and CD³² owners starved of decent new titles. This latest disc from PD Soft was originally produced by a German company called Media Team and contains over 500 games plus – unusually – a handful of commercial demos and a nice selection of tips for well known full-priced games.

Although not quite as polished as the *Assassins Collection*, *Power Games* is still worth investigating.



Ack Ack: one of 500 PD games on the *Power Games* disc which also features tips and demos.

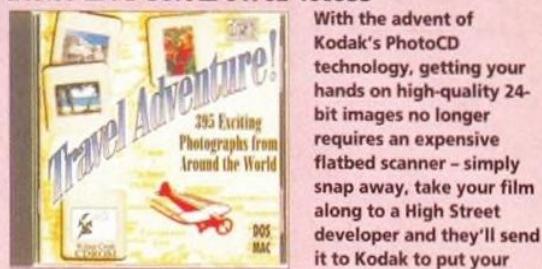
Campaign: travel the world and shoot people.
Car: travel the world and race against people.

"A healthy selection of the best in Amiga PD games."

80%

TRAVEL ADVENTURE!

£19.99 ■ PD Soft ■ 01702 466933



Washington DC photographer Nick Shears has taken advantage of this technology with the release of *Travel Adventure!*, a collection of travel photos from around the world.

Available in GIF and TIF format, the quality of the photos is top notch. For multimedia producers and graphics fans, this disc provides a fine selection of quality artwork.

"A collection of high-quality photos from around the world."

78%

TOWN OF TUNES

£24.99 ■ PD Soft ■ 01702 466933

Town Of Tunes originates from Scandinavia and is yet another compilation of SoundTracker modules and music-related utilities for both the Amiga and PC.

Utilities on offer for those of us sensible enough to have a Motorola under our bonnet include sample editors, MIDI tools, a tracker and various

sound converters. The main attraction of the disc is the massive selection of modules which are arranged into separate directories in alphabetical order.

In terms of value and content, *Town Of Tunes* loses out to *Weird Science's Sounds Terrific* double CD (AF66 80%), which is £5 less.

65%

IMAGINE ENHANCER

£49.95 ■ Gordon Harwood ■ 01773 836781

If PD compilations are the most popular types of Amiga CD-ROM then compilations aimed at the 3D rendering nut aren't far behind. This disc was first produced by German company Oberland – every file and directory is listed in German. *Imagine Enhancer* is aimed at Amiga and PC *Imagine* users alike. There's the usual selection of 3D objects, texture maps and attributes. An uninspired release.

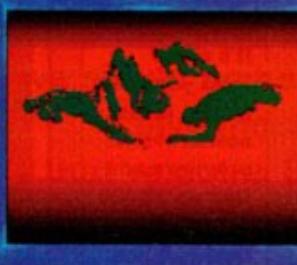


50%

8:00:00:00



0:00:00:00



THE CONNOISSEUR

**Lascelles Productions, Price: £34.99
Tel: 010646876888.**

Dear oh dear, is this really what the CD information revolution is all about? *The Connoisseur* shows exactly how to use the very basic elements of multimedia and create an exceptionally tacky package. Not that it isn't informative, it just looks like it was put together in an afternoon. A short one. One that starts with a long lunch and ends with everyone knocking off early because there is nothing else to do.

The package is subtitled The Fine Art Collection, which should give you some idea of what the package is about. Yes, if you're lucky enough to have either a CDTV or an A570 CD-Rom drive, then you too can enjoy over 400 works of art from the comfort of your living room.

I don't know about you, and although I have spent the odd afternoon browsing through galleries I wouldn't class myself as an expert, but part of the joy of viewing a painting is seeing the clarity of brushstrokes, guessing at techniques and generally enjoying the colour and shading. When you try and fit a 13 foot by six foot painting onto a 14 inch monitor, the effect is lost somewhat. When the same painting has obviously been scanned from a none-too-clear photograph, and in some cases even retouched with an art package, the

feel is completely gone. You might as well get hold of a large hardback book from your local library.

The Connoisseur comes complete with a full databank on the hundred or so artists represented within the package, including everything you didn't want to know. Each picture has some sort of documentation explaining when the picture was painted and what it's about. The works are also loosely grouped into nine different periods, including Baroque, Impressionist and Classical Greek. If you want, there are 10 pieces of music for you to listen to while you look at each still, from Mozart's Romanza to one of Chopin's lesser known Etudes.

As a reference tool to be used alongside, say, a really good art catalogue, it would be ideal. As an appreciation of art, it's a waste of time. Even if you wanted the music, you could probably find all of it and more on one of those fortnightly Classical CD magazines. Tack. Pure tack.

41%

PREY

**Kirk Moreno Multimedia,
Price: £29.99
Tel: +4586181607.**

From the moment you load *Prey*, you're assaulted by a blistering array of digitised graphics and sound shifting at a cracking pace. The game is an 'alien'-style story, where you are searching a moon base which has been gassed by aliens. Initially your aim is to rescue survivors, but as the game unfolds, a more sinister scenario evolves.

The game is viewed from inside your helmet, with the outside world viewed in 3D, but only in the four main compass directions, as in *Bard's Tale* or *Dungeon Master*. It's all done in gloriously gloomy shades, creating a dark and claustrophobic atmosphere broken up every now and again by a radio message, sent to you by a German bloke speaking English in an American accent, dropping in the odd four letter word here and there.

The problem is the huge disk loading times. You begin against the clock, as you are only given 60 seconds of oxygen at the start of the game. The radio message at the start tells you there is a room in the medic centre that has more oxygen, and it is marked on your map. Then the clock starts ticking. It takes about 50 seconds to walk to the medic centre. Fine. But it takes 30 to load the map and then return to the game. What are you supposed to do, guess?!

On the bottom line, it could have been a very heavy game, but in the end it just becomes frustrating.

65%



Constable THE HAY WAIN 1821
National Gallery, London.

Constable's show
Stour in the middle
in 1824 and created
French Romantics.



Classical



Early Renaissance



Quattrocento



High Renaissance



Northern Renaissance



Baroque



18th Century



Romantic



Impressionist

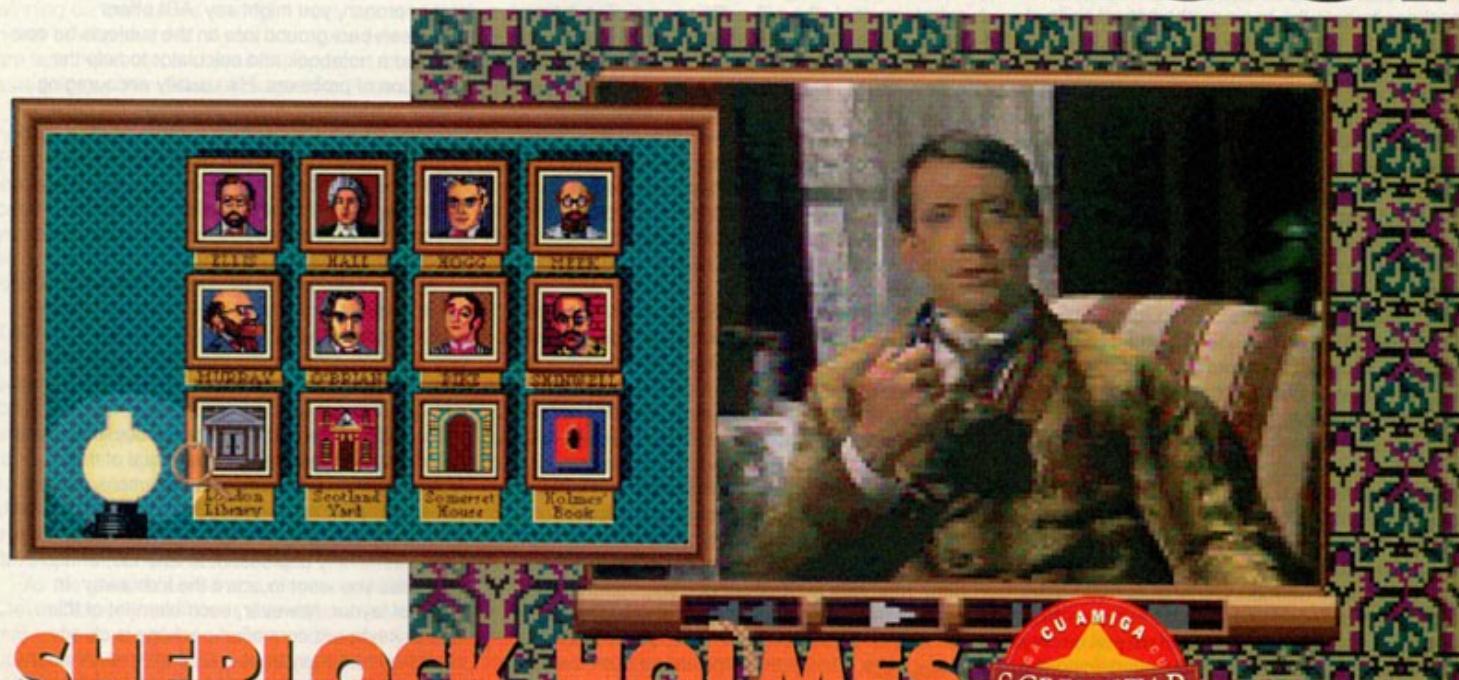
Music

Artists

Gallery

CDTV SOFTWARE

As the availability of CDTV products increases can the same be said for the quality? This and other heart stopping questions are answered in this month's reviews.



SHERLOCK HOLMES CONSULTING DETECTIVE

**Silica Systems, Price: £39.99,
Tel: 081 309 1111**

Sherlock Holmes Consulting Detective (*SHCD* from now on) is what can only be described as a great CDTV title. It features everything that the CDTV is capable of, but which previous software companies have failed to utilise. Impressive graphics, both still frame and moving, quality sound, good story line and lots of interaction are all included here. This is the best attempt I've yet seen at producing an interactive, multimedia title.

None of the separate elements really stands out, although the CDXL pictures are good, but what makes it such a winner is that it's all strung together in a convincing manner, with the switching between different types of data done in an authentic manner. Most products of this type, whilst doing much the same thing, have very clearly defined borders for the different types of data being shown or heard. For example, when a CDXL clip is shown in other applications, it's all too common for the screen to be cleared, everything to stop and the pictures just dumped to the screen. In *SHCD* the previous screen is kept up, and a projection screen gently scrolls up to show the pictures. A subtle difference, but one echoed throughout the game and one which produces an atmosphere of a single multimedia application, rather

than a collection of different media thrown together.

The low down on *SHCD* is that you wander around 18th century London solving or attempting to solve cases. On playing the game a pictorial of a book appears, complete with a pretty old fashioned cover, and promptly opens. Inside this is a 'table of contents' that gives you a list of three stories to solve - The Mummy's Curse, The Case of the Mystified Murderess and The Case of the Tin Soldier. Moving the mouse over one of these titles and selecting it takes you to that particular case.

On selecting a particular case, the page turns to reveal a page with various tools (or resources) to enable you to figure out and solve the chosen case. The edges of the page are surrounded by icons, an icon for each resource. By clicking on one of these you can move around a map of London to see cinema-like video (more of this later) of interviews with suspects, etc. read case studies, background information, newspapers or make notes on the case or points of interest.

Each of these tools reveals different types of information. These are all displayed in the centre of the book in a pretty authentic manner, thus the 'notes' icon brings up a simulated notebook, whilst the 'travel' icon displays CDXL moving pictures. These are worth seeing. On



Let Sherlock Holmes be your guide to Victorian London as you attempt to solve mysterious puzzles from his case book.

clicking on the icon a slide projector-type screen scrolls up, upon which the pictures are shown. At the bottom of this screen are video style buttons for 'rewind', 'pause', 'stop', etc. The moving pictures are all very well drawn, possibly the best I've seen. Furthermore the narration that goes with them is very well done. In scenes where Sherlock and Watson are talking the voices are dubbed to match their mouth movement. The overall effect is very convincing, you can almost believe you're watching a video! Something that few other CDTV products have yet achieved.

Once you believe you've solved a case you can move to the 'trial' section. If you have not yet amassed enough clues you are returned to the main screen to find more. For each action you carry out you amass a set number of points. If you have successfully solved the case, difficult in itself, you must then try to beat Holmes' score!

SHCD is the first game that effectively shows off the capabilities of the CDTV. With 90 minutes of full motion video, quality graphics and decent sound it's bound to be a hit and may even sell a few CDTVs off its back. Whilst not being the much talked about 'killer application', it is the best CDTV game yet and I have no problem in recommending it to CDTV and A570 owners.

91%

ARE D.-UP

CASINO GAMES

Saen Software,
Price: £29.99,
Tel: 0103175178257.

Casino Games is a compilation of three different types of gambling pastimes – poker, fruit machines and roulette. I could never understand the point of doing this kind of game, particularly single player versions, because the only reason anyone gets any enjoyment from a gambling is the chance to win loads of cash. In that light, these games are about as pointless as a joystick without a fire button, and only marginally more entertaining.

The most graphic of the three games is the fruit machine. You are presented with a representation of a typical one-armed bandit complete with arm. The basic idea is to get three similar symbols on the same line in order to win – but as you can't actually win anything, why bother? There is no real element of skill involved in this game, it is all down to pure luck. I could see some point in it if there was some timing needed, but all you do is press the button to start the chambers tumbling.

Next up is poker. This is a conversion of the arcade machine version rather than the baize table game, so instead of holding a betting war with someone, you simply have to choose one of the highlighted hands, and then gamble for more money by playing 'high and low'. This is done by you being shown a card and then having to guess whether the next card is higher or lower.

The final game in this sad package is roulette. You'd have thought that with all the graphical capabilities of the CDTV on offer they could have at least made the ball behave realistically. Instead, this one follows a perfect circle around the 'spinner', only to suddenly stop in a hole.

The presentation is very simple – basic blue backdrops and boxed screens with little flair. Yet, for some reason, there are all manner of unnecessary pauses both when loading games and during play. As for the sound, well, funnily enough, it isn't sampled; so instead of all the exciting bells and whistles that could have been used, you have to put up with half-rate disco tracks and little beeps. This does nothing more than dampen a very dull set of games. I don't want to advocate gambling as a hobby but you'd be better off going down to your local arcade and spending your £30 there – at least there's a chance to increase your winnings. Is this really what multimedia is all about? I don't think so.

41%

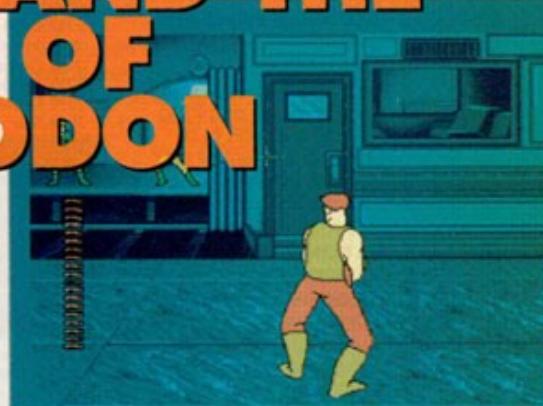


GUY SPY AND THE CRYSTALS OF ARMAGEDDON

Entertainment International,
Price: £29.99,
Tel: 0268 541126.

Steve Keen was mightily impressed with Guy Spy, giving it a whacking great 82% in its floppy incarnation. It wasn't perfect, but it was the most playable cartoon adventure yet. Now it comes to the CDTV, exactly the same as the Amiga version but without the loading times. If you didn't know, Guy Spy was Readysoft's attempt at proper controls, rather than the 'select-a-move-and-wait-to-see-if-you-got-it-right' system of things used in the Dragon's Lair series.

To be fair, in that respect they did get it right with Guy Spy. Yes, he moved when you moved the joystick, and you did have a fair amount of control over his actions, but when you're moving that size of graphic, things tend to get a little slow, and there lies the problem. Take the first scene, for example. You are in a train station in



Berlin, and Guy is stood in the foreground with armed assailants in the background. They move quickly, but you don't. Consequently, it isn't very easy to avoid their bullets and it's very hard to hit them with yours.

Needless to say, the graphics and animation are stunning, over 1500 frames at last count, and the soundtrack is booming and atmospheric. It's the most playable Readysoft game to date, but it still lacks the fluid game-play to make it a real hit.

72%



CDTV ROU

KARAOKE HITS VOLUME 1
Music Machine Marketing,
Price: £19.99, Tel: 0204 387410.



Oh, how we laughed when the local boozier hired out a karaoke machine for the night... how we sighed with disappointment when it turned up the following weekend... how we abandoned the former Saturday night hot-spot when it became a regular feature. Nauseating as it is, karaoke is still doing a good trade in pubs up and down the country, so if you fancy making a few quid from your CDTV, why not try transforming it into a karaoke machine?

Karaoke Hits Volume 1, from Music Machine Marketing, is a 21-track disc with an idiot-proof user-interface. Seeing as there's nothing to do but select the song and hit play, it's easily operated from the keyboard or control pad. Songs included are the usual mix of old rock and roll, ballads, and country tunes: Oh Carol, Diana, Da Doo Ron Ron, It's My Party, His Latest Flame, In the Ghetto, Good Luck Charm, I Only Wanna Be With You, Who's Sorry Now, Stand By Your Man, The Young Ones, Bachelor Boy, On the Beach, Will You Still Love Me Tomorrow, Rose Garden, Something in my Heart, My Special Angel, Sugar Time, It's Only Make Believe, and Sweet Nothings.

The songs vary in quality, with some including backing vocals and sounding very much like the originals. Others are less impressive, leaving you to hum half of the music yourself. There's nothing in the way of graphics, which is a shame, so all you get on screen are the lyrics which light up in time with the music. There is, however, a genlock option, which you could use in conjunction with a video camera, mixing live pictures of the singer, the crowd, or a separate video source with the lyrics.

It's a shame there are no graphics. A static picture at the very least wouldn't be too much to expect, seeing as there's not exactly a shortage of space on a CD.

As a piece of home entertainment, *Karaoke Hits* is a bit of a waste of time. You may as well just put your favourite record on your hi-fi and sing along with that. As a tool for transforming your CDTV into a karaoke money-making machine, it's not bad at all. All you need now is a PA, a mike with a two minute long echo on it, and you're off. Just don't forget your earplugs.

80%

LEARN FRENCH WITH ASTERIX SWANFAST COMPUTERS, Price: £69.98, Tel: 071 731 0846.

How school kids are supposed to learn to speak French by reciting hundreds of verb endings is beyond me. This two-disc set aims to assist the learning of French in a rather more entertaining way, and is quoted as being suitable for anyone from 15 to 50.

Most of the discs are taken up by a talking book. Digitised illustrations from the original Asterix books are accompanied by the voices of French actors playing the parts of Asterix, Obelix and all their friends. With the default settings, the speech bubbles are left blank, and you're left to decipher the story from the French speech. If you need a bit of help, you can opt to fill the speech bubbles with French text, English translations, or even get a word-by-word breakdown of everything that's said. This is the most useful feature, as it helps you get a better understanding of word order, vocabulary and general phrase construction.

Also included is an 'interview' section. Here you can choose questions from a list, and direct them at either Asterix or Obelix. Both the questions and answers are spoken in French. If you have a sampler cartridge and microphone connected (such as Microdeal's Voice Master covered here), you can listen to a phrase, speak it into the mike, and then play it back to see how your accent compares to the French voice on the CD.

As educational software goes, *Learning French With Asterix* is very professionally produced, and would inject some much-needed interest into any French lesson.

89%

"IL S'EST ENDORMI ! CA N'EST PAS PLUS GROS QU'UN STÈNE MARCASSIN MAIS ÇA VOUS OCCIRE AUTANT QUE POUR TAILLER CINQUANTE MÉNHIRS !"

"CE ME DEMANDE QUI A TU AVOCÉ LE MONSTRUEUX COURAGE D'ABANDONNER CET ENFANT !"

If you were hoping for a translation, tough luck. You'll have to buy the CD for that!

Anyone new to Asterix can get acquainted with him and his merry band-in the introduction scene. Once you know who's who, you can ask Asterix and Obelix a few probing questions.



ND-UP

GLOBAL CHAOS

**DMI Ltd., Price: £29.99,
Tel: 0753 686000.**

Remember *Top Banana*, that collaboration between dance music producers Cold Cut and programmers Hex? Well here it is again, this time backed up by a collection of nine additional soundtracks.

From the title screen you can choose to play any of the soundtracks, or just go straight into the *Top Banana* game. There's no difference in the CD and floppy disk versions of the game, so it remains a graphically sickening, simplistic platform affair with silly and often irritating sounds effects. If you can imagine playing *Rainbow Islands* with half the features missing, and a whole load of corrupt graphics, you've got the general idea.

Completely unconnected to the game are the soundtracks. I was expecting something special when I read the credits on the inlay and discovered they had been produced by Cold Cut, but I was in for a disappointment. Select the Global Chaos icon, and you get a choice of four tracks. They're all in much the same hardcore style, with random sequences of 'cyberdelic' graphics for a bit of visual stimulation. They're not bad, but nothing more than you'd expect from an average PD rave demo. Digital Love is another collection of four tunes. These are supposed to be ambient, but they're merely slow-moving chord sequences with very simple melodies. Don't expect any powerful hypnotic soundscapes. Finally there's Eternal Rave. This is a single track with some very messy loops, and loads of sounds that are often both out of time and out of tune with the rest of the track. Unfortunately, unlike the others, the stereo panning here is hard left and right, so listening through headphones is out of the question.

Despite some good ideas, *Global Chaos* fails to impress.

59%



Nice video, shame about the song. The powerful, if jumbled rave tunes are let down by the weak 'ambient' soundtracks. The less said about the game the better.

THE ILLUSTRATED WORKS OF SHAKESPEARE

**Animated Pixels, Price: £29.95,
Tel: 0705 291866.**

When the Amiga first arrived, the 'vast' 512K memory was almost too big for most game programmers, who took to filling the extra space with digitised graphics and sound that often had very little bearing on the games themselves. Now with the enormous storage capacity of CDs, designers and programmers are once again at a loss for how to make use of all that space.

The *Illustrated Works of Shakespeare* is another of those CDTV releases which seem to be more of an exercise in filling a CD than a serious attempt at a useful piece of software. The disc holds 42 poems, sonnets and plays as text files; just about everything Shakespeare ever wrote. These are all accompanied by digitised graphics, illustrating various scenes from the text.

It works pretty much as a straight book. You can move back and forth through the current piece, call up a relevant illustration, change the font, or search for a string of text. You can also move onto another play, poem or sonnet at any time. If you're reading Shakespeare as part of a literature course, it could make studying a bit more bearable. Other than that though, I can think of little practical use it could be put to. If you just want to read Shakespeare, you may well find a good old fashioned book cheaper, more portable, and easier on the eyes.

65%

Calling all Shakespeare fans! No don't all rush at once. Now you can enjoy his complete works on CD.



Scene	Bookshelf	Picture	Galley	Books
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Cymbeline King Of Britain

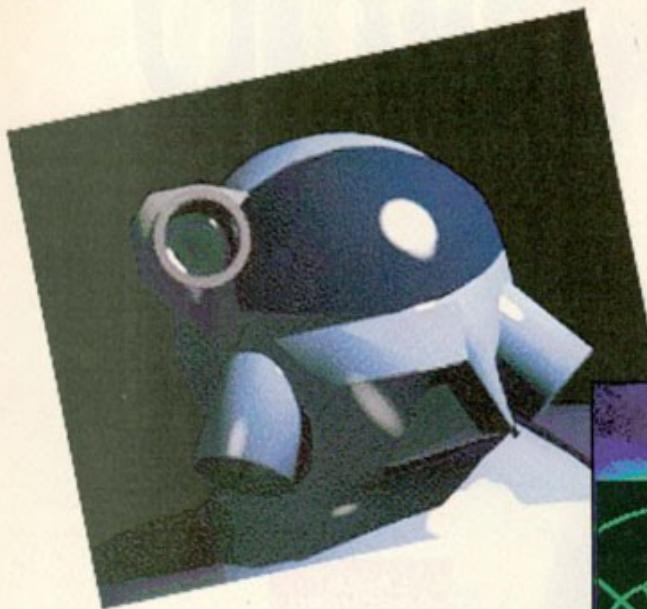
1st Gentleman His daughter, and the heir of's
Kingdom, whom
He purposed to his wife's sole son - a widow
That late he married - hath returned herself
Unto a poor but worthy gentleman. She's wedded,
Her husband banished, she imprisoned; all
Is uttered sorrow, though I think the King
Be a kinder master to her.

VOICE MASTER

Microdeal, Price: £39.99, Tel: 0726 68020.

Well known for their sampling hardware and software, Microdeal have now released a sampler specifically for the CDTV. Although it comes with no software, the small microphone and cartridge can be used with other existing CDTV software, like karaoke discs and the *Learn French With Asterix* program. That's all there is to it really. If you've got any sampling software, you can use it just like you would any other sampler.

continued from page 93



Produced by the Danish company Kirk Moreno, Prey is a game with animated 3-D graphics and realistic sound effects. It is described as "a rescue-mission set in an amazing science-fiction world". However, it is let down by poor response to the controls, making it frustrating to play. You take the part of a security officer on the Asteroid KG-24, and your space station is filling with gas - the crew must be saved. Aliens are invading and you are challenged to a fight. You are given a position on a map showing where the crew are situated, but I found it difficult to get far before the oxygen runs out. I am told there are 230MB of data on the disc, but did not get the chance to see much of it before I died! However, a colleague who has managed to get much further, raves about it and finds it absolutely addictive. So it's certainly a game worth adding to your collection.

Verdict: Nice idea but, for me, a shade frustrating to play.

80%

the secret of monkey island

Have you dreamed of becoming a pirate, of mastering the sword, of finding unimaginable wealth, and taking part in incredible adventures? It is all here waiting for you. Would-be pirate Guybrush Threepwood is endeavouring to discover the pirates' secrets and the treasure. Screen after screen of colourful graphics and animations make your exploits an exciting experience. There are many puzzles to solve and objects to collect, and it is all accompanied by catchy reggae music.

Not normally an Amiga adventure games player, (I had to borrow a "hint book" from another ICPUG member) I found this Amiga title thoroughly

entertaining, and it sets an excellent example by its speed and user-friendliness, although it is still a brain-teaser! (For those who really get stuck, the "Hint Book" is available from Lucasfilm Games, PO Box 10307, San Rafael, CA 94912, USA.)

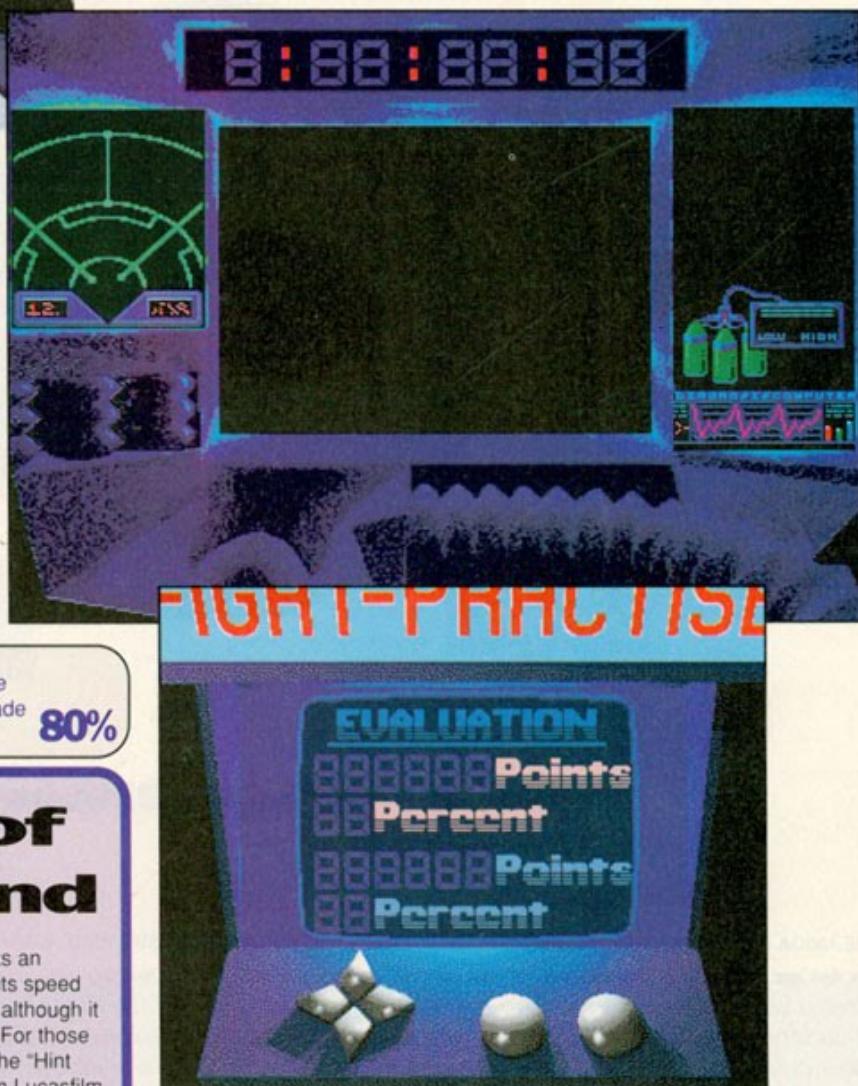
The Secret of Monkey Island is ideally suited to CD-ROM format as it does away with the disk-swapping associated with the Amiga floppy-disk version. It is excellent value for money with hours and hours of game-play.

Verdict: One of the best adventures on CD so far

91%

prey

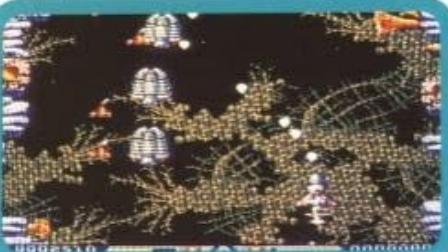
an alien encounter



TITLES REVIEWED

Bridge - Introduction to Bidding Will Bridge	Art and Leisure	RRP £29.99
CDPD 2 Almathera	Art and Leisure	RRP £19.95
Prey - An Alien Encounter Kirk Moreno	Entertainment	RRP £29.99
The Secret of Monkey Island CDTV Publishing	Entertainment	RRP £29.99

So, having looked at the comparisons (and being a hardened games-player), you'd probably say to the old hag: "I'll take the CDTV and the sweetie, you can stuff your string malarkey, old woman!" Then you grab the cash, nip to the shops and grab the new sleek black gizmo. But what are the games like? Well, at the moment, most of the games on offer are little more than straight ports of Amiga games with a few add-on bits to 'utilise' the additional CDTV capacity.



XENON 2
Mirrorsoft/E29.99

The Bitmaps' classic shoot 'em up appears as one of the first CDTV products – it's just as fast and furious as it ever was, although slightly more hard to control with the joypad. The Bomb The Bass Megablast soundtrack has been remixed and now sounds better than ever when heard on CD through hi-fi speakers. The extra capacity of the compact disc has been used to include some other Rhythm King classics including S-Express and the lovely, pouting Ms Elizabeth Boo.

Unfortunately, due to licensing agreements, you can only listen to these extra tracks during the front end

FORTHCOMING GAMES

- B.A.T./Ubisoft
- BATTLECHESS/Interplay
- BATTLESTORM/Titus
- FUTURE WARS/Interplay
- THE HOUND OF THE BASKERVILLES/On-line
- JACK NIKLAUS GOLF-CDTV/Accolade
- PSYCHO KILLER/On-line
- PREHISTORIK/Titus
- PRO TENNIS TOUR II/Ubisoft
- UNREAL/Ubisoft

CDTV GAMES

screens. To make the most of them, there's a whole section where you can select your favourite *artiste* to see some pics of them and a few choice *Chart Show* style info snippets. If you select 'our Betty', you get to discover that her greatest fear is lizards.

FALCON
Mirrorsoft/E44.99

Falcon came out quite a while ago on the Amiga, but it's still a fairly competent flight sim with smooth graphics and plenty of realistic detail. The CDTV version comes with 24 missions (which include those available on data disk for the Amiga) and some other extras that utilise the CDTV's capacity. During the mission briefing, your instructions are accompanied by the voice of the commander and a training film to demonstrate your objectives. When you're airborne, the voices of other pilots can be heard. The graphics and gameplay are exactly the same as the Amiga version, making it a bit disappointing.

SIM CITY
Infogrames/E29.99



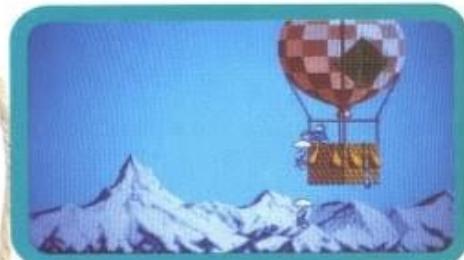
It's no surprise that a classic on every other format should be one of the first to appear on CDTV. Building your own city is still as addictive as ever, and as well as the normal graphics, there are medieval, western and future city scenarios.

Also thrown into the bundle is a rather 'dodgy' rock track to accompany your urban planning. The only hassle with it is that, as per usual, the joypad makes it rather difficult to control what's going on. Again, it's no different to what you'd find on the Amiga, but then you wouldn't want to mess too much with such a tried and tested formula, would you?

LEMMINGS
Psygnosis/Included With CDTV

Basically the same cute little game that we know and love from days gone by on the Amiga. Still brilliant fun, but is better

played with a mouse (obviously only available as an optional extra). It comes with a demo for the stunning-looking *Planetside*, which looks to be about the best game to be seen on CDTV – making better use of the machine's capabilities than anything else around at the moment. It features smoothly-scrolling digitised landscapes and graphics and some blasting sound effects. Unfortunately the game won't be available until this time next year.



WRATH OF THE DEMON
Readysoft/E30.60

This is almost exactly the same as the Amiga version, but is in fact slightly easier and more enjoyable because of it. (Check out *Deja Vu* to read about the PC conversion.) There's nothing new in the CDTV version except that the Amiga's many disks are gone and it's all stuck on the one CD.



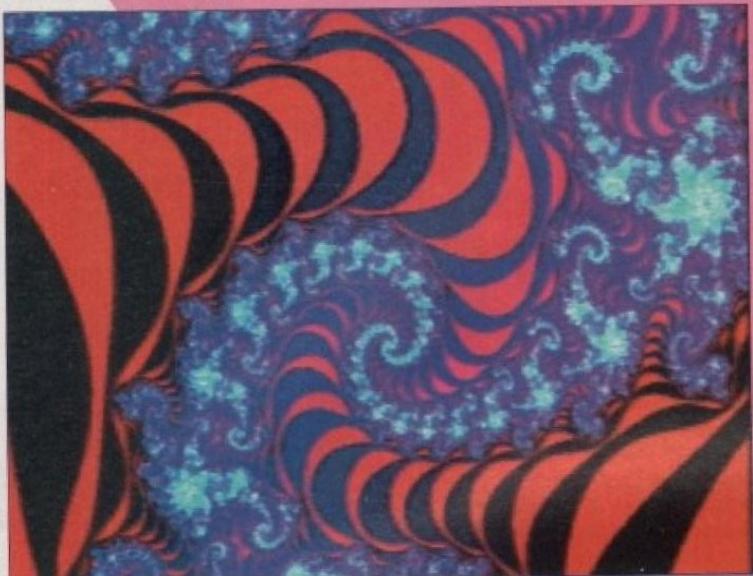
STRING'S THE THING

So, judging from the currently available software, there's nothing that makes the CDTV the machine to have for the gamesplayer.

Every game out at the moment is really a straight port of the 16-bit version.

Software publishers are unwilling to invest the large amount of money required to develop games for a machine that's only just coming onto the market.

So until something turns up that really makes use of the CDTV's potential, I'd try and lay my hands on that 8.5km of string if I were you.



Fractal universe can be very colourful



Fun School on CDTV makes learning a little less boring

CDTV software

- is it any good?

You can now buy a CD-ROM drive for your Amiga and use the growing range of CDTV software that is available. But why should you part with approaching £300 anyway? What can you do with it? Are the CDs now available worth handing over your hard earned dosh for?

To answer to these questions I locked myself in a room, plugged in my trusty Amiga with attached A570 and examined some of the growing range of CDTV titles.

A Bun for Barney • £29.99 BBC Multimedia

This is a great advert for CDTV. In its raw form – without any interaction – it is a fairly simple story for children lasting for around 15 minutes.

Even at this level, with its beautifully

drawn pictures, Tom Baker narration and sweet story line, *A Bun for Barney* would keep many young children happy.

But the best is yet to come. As the pointer is moved around the screen, which any inquisitive child is bound to do, and over certain areas of the pictures, it changes into a magic wand.

Press the button at this point and the pictures spring into life with bunnies that jump out and dance, frogs that leap and trees that sway. A definite trendsetter and one which all prospective CDTV developers should take a look at!

Advanced Military Systems £29.99 • Dominion

Most us, speaking from a masculine point of view, go through a period of being fascinated with guns, tanks and weapons. For

anyone going through such a period this one's a must – masses of information on the most deadly and exciting (?) military hardware in the world.

Combining the world of computers and war, two popular pastimes of a lot of children, I would guess this is likely to be a small success!

All Dogs go to Heaven • £34.99 Merit Software

A pretty basic painting package which suffers from being too simple for its own good. Very simple in concept, you have a series of drawings which you then add your own colour to – the '90s version of painting by numbers?

Select the colour, move over an area and then pour the colour into that area. For small children it's probably quite good, but for everyone else it's just too limiting.

Even for children it has the limitation that there are only so many variations. If there'd been additional picture disks it would have had more potential.

Animals in Motion • £29.99 On-Line

A bit of an odd one this. Why anyone would want to spend just under £30 to look at a collection of black and white pic-

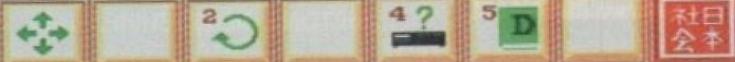
Julius Alexander romps into the CDTV ROM revolution to find some good, some bad and some ug

Writing

Katakana

Mrs Johnson bought a Bakewell tart in Derbyshire.

Jiyonson san wa dābīsha de baikuweru taruto o kaimashita.



Japan World is designed to teach Japanese interactively

tures of animals I don't know. However artist friend of mine has assured me that budding animators, illustrators and painters this collection is invaluable so I guess £30 it's good value.

Apparently the work of Eadweard Muybridge, which this CD is all about, trailblazing stuff when originally done still is for artists creating movement animators.

This CD shows his work as stills and animations and I have to admit that even

simply this made me want to try drawing... if you've got artistic leanings, take a look.

Battle Chess • £39.99 • Interplay

A game of chess with a difference. Using a 3D view of the board, you watch as your pieces move around the board – under your instructions – and do battle.

Although it's another Amiga conversion and not a great one at that, it still has a lot of novelty value and plays a reasonable game of chess, something to waste away the winter evenings with.

Now if someone would only do a version where you actually played the game from a piece's-eye view, and charged around the board, I think they'd have a far greater hit on their hands. But for the time being Battle Chess is a good attempt at a first introduction to computer chess.

Battle Storm • £29.99 • Titus

A great Amiga game perfectly adapted to CDTV media. Not! It's a basic arcade game with multi-directional scrolling, lots of aggressive aliens trying to blow you to bits to which you must react in a like fashion.

No advantage of using this on the CDTV and pretty standard as arcade games go. Overall boring and disappointing.

Case of the Cautious Condor

£34.99 • Tiger Media

A lot of people have raved about this particular title and admittedly it shows what can be done with masses of storage space.

It's a simple detective story where you must solve a murder by wandering around, listening to other people's conversations and picking up clues. The graphics – there are loads of 'em – are fantastic, almost real cartoon quality and the sound is impressive.

Unfortunately I found the depth of gameplay lacking – the only way you are prevented from solving the case in the first go is by a time limit (given enough time you could solve it on your first go). Worth trying but don't bank on it as a long term source of entertainment.

*Let's face it,
fractals can
look pretty
impressive
sometimes...*

CD-Remix v2 • £29.99 Microdeal

The quickest way to describe this title is as a sequencer for CDs. You specify parts of a music CD which you can then remix, looping and repeating them at will.

There are a couple of niggles but nothing serious, ie changeovers are a little rough, but these aren't the fault of the CD software and without some awfully expensive studio equipment there are no easy answers.

These gripes aside, it's very simple and sweet CDTV application that will give owners hours of enjoyable fun.

Connoisseur Fine Art Collection £34.99 • Lascelles

Personally I've always wondered just who buys books with nothing but picture after picture in them. However someone must, and given that, this disk is quite reasonable.

It's basically a collection of digitised photos of paintings across time, with explanatory text. If you're into this kind of thing, open your wallet and take your flexible friend for a walk, you won't regret it.

Dr Wellman • £54.99 Digita Multimedia

Where as most of the games reviewed here started off badly, Dr Wellman started well and kept up appearances. There are several different ways of getting to the information you want, and all well presented.

The software utilises the medium well with lots of informative text, most of which is backed up with pictorial support.

To further help and give you confidence in the product – important given the subject matter – there is a lot of narration, and

the voice immediately helps being in a relaxed but confident manner. It contains a lot of information covering a many of the general medical topics you'd expect to come across in the home.

This is probably one of the few titles I looked at that I was sad to return – it almost made me want to cut my finger to find out how to apply the plaster!

Falcon • £49.99 Spectrum Holobyte

For the armchair pilot who's doesn't have another computer, Falcon is a pretty good introduction to combat flight simulators. For A570-owning Amiga users, however, there are several better programs available for the Amiga.

Possibly Falcon's biggest problem is that given the amount of control you have through the remote controller, you have only a small amount of control over the plane.

This aside however, it's still a good game with lots of different missions, nice graphics, reasonable speed and OK graphics.

Fractal Universe • £29.95 Almathera

A lot of people are fascinated by fractals and if you're one of them then this is the CD for you! As well as the ability to generate fractals (and let's face it, fractals can look pretty impressive sometimes – see the screenshot of the Fred Fish Collection) Fractal Universe also includes full background information and a lot of text on the subject of fractal art.

I can't help feeling however that £29 for this is a little over the top, but if you're into fractals then you should have it.

Fred Fish Collection • £19.95 Almathera

The Fred Fish Collection is a large assortment of programs, utilities and games. While for normal Amiga users their collection on to a single CD is to be welcomed (you don't want to know how many floppy disks it takes to store this collection normally) I'm doubtful of their use to the CDTV user.

This is because many of the utilities and programs were designed for use with a keyboard and as such CDTV owners will have to buy a keyboard to get the maximum benefit from it.

For A500 with an A570 however it's a great collection and a useful CD.

Fun School • £24.99 • Europress

On the Amiga the Fun School range of educational software has been well received by children. It's a fun and easy educational range that get children learning while they're having fun – which must be a good thing.

There's nothing exceptional in this Fun School series of several CD-ROMs each costing £24.99 that provide an educational age range from under five to over seven.



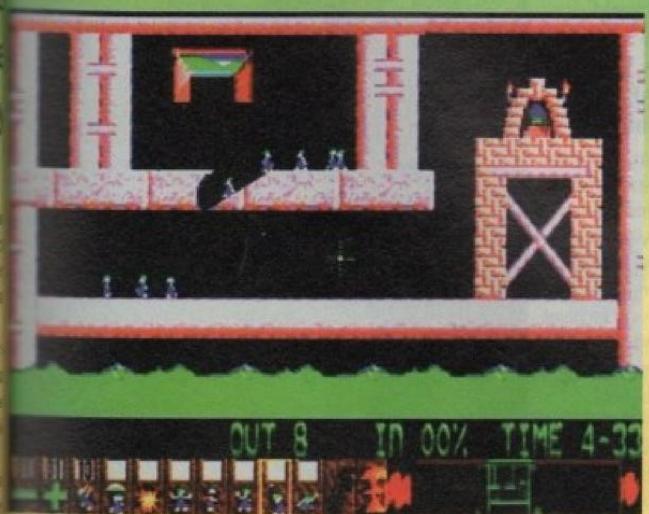
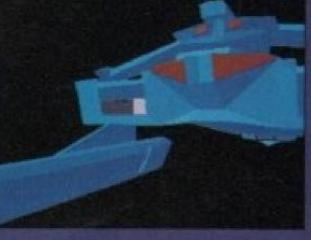
The Scala 500

The home video titling system

- 4 typefaces in many different sizes
- 2 disks with all kinds of symbols
- Many useful backdrops
- 25 transitions on text and symbols
- 34 transitions on pictures
- Professional Credit scrolling

Symbols

and effects



Lemmings:
What more
can be said?

The only question I have is that given that CDTV disks are supposed to be cheaper to produce and the capacity of one CD disk equals a lot of floppies – couldn't Europress have put more than one Fun School title on a CD-ROM and charged the same?

Still if you've got the money and children to educate (surely a contradiction in terms?) wander down to your dealer and take a look.

Garden Fax Series • £34.99 Intersearch

The Garden Fax Series are in fact four disks, each costing £34.99, but because they are all so similar – the only difference being the type of plant they cover – I'm looking at them as a whole.

Initially they are disappointing – gaudy colours and poor graphics they don't appear to offer much. But on further examination they provide an informative, detailed analysis of plants (along with photos), all of which is easily accessible.

Using a simple selection process which starts you at the top of a list of 200-odd plants, answering various questions you work your way through a series of conditions (light, colour, temperature etc) that your prospective plants must live in.

The program then presents you with a small list of plants to choose from, on which you can call up growing information and so on. Neat, simple and effective but could do with a little tidying up around the edges.

Global Chaos

If you're into the rave scene this is a definite must. Abstract patterns set to some pretty wild audio tracks and a simple game thrown in for free.

The result is likely to become a cult product and will undoubtedly further the Amiga's street credibility, but unlikely to sell in great quantity.

Guinness CDTV Disk of Records £34.99 • Guinness

One of many encyclopedia-type CDs. It's of reasonable quality with digitised photos, pictures, speech, the odd animation and film clips. For those interested in records, this provides what must be the definitive reference guide and a really useful, yes



Sherlock Holmes Consulting Detective – simply the best CDTV game yet!

really useful, product giving near-instant access to a vast amount of information.

Hound of the Baskervilles £29.99 • On-Line

This is the CDTV title of the famous Sherlock Holmes case and I have no problem in recommending you stay with the book version.

I can only describe this CDTV title as, erm, poor, poor and poor. Very few pictures, no moving images that I saw, very little interactivity and generally lacking in quality.

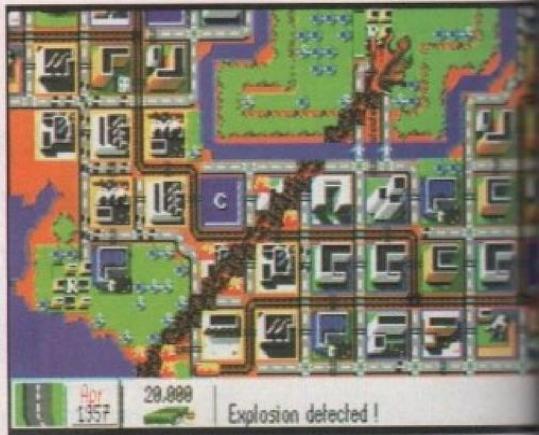
The only redeeming aspect is the quality of the vocals – these at least have been done by someone who knows how to narrate – clear and authoritative.

If you're looking for a detective story or Sherlock stories, take a look at Sherlock Holmes Consulting Detective.

Illustrated Holy Bible • £29.99 Animated Pixels

A disappointing CDTV title this one. It's immediately obvious that little work went into this. There are blatant mistakes in the text where it has been mistyped and the Amiga-drawn pictures of scenes from the bible are lousy.

Add to this that there's very little true interaction and it's a disappointing CD all-round. The only real point of this CD is that you can search for particular words and verses, but I'd seen this done about 12 months ago on a PD floppy disk-based version. That cost about £8... it's your choice.



Sim City – a god game for town planners everywhere

Explosion detected!

Japan World • £49.99 Global Learning Systems

Imagine a language tuition course where you could hear and see the language in question. You could also call up information on just about every aspect of life in the country of the language. You'd have a powerful aid.

Japan World is just such a package. Maybe it's because I've always been fascinated by Japan, or maybe it's because this is a good disc in its own right, but either way I was really impressed by Japan World.

If there were other language courses (say French, German, Spanish) of a similar quality to this, Commodore would have a strong advert for CDTV!

Lemmings • £34.99 • Psygnosis

What needs to be said that hasn't already been said about Lemmings? This is a pretty standard implementation of the classic Psygnosis game.

It's a little disappointing that with all the storage space available thousands of more levels weren't added and that the CDTV controller is not the best way to command your Lemmings, but it's still a great game. If CDTV is your first computer you should take a look at this.

MyPaint • £29.99 SaddleBack Graphics

This had great potential. The CDTV as a home entertainment environment will obviously have a large number of young children using it. Every child I know loves to paint and draw and as such a CDTV painting package is a great opportunity.

Sadly, MyPaint suffers from the CDTV's controller, which just isn't suitable for painting. Every

time I tried I just ended up with a straight line!

Given a decent controller like a drawing tablet or light pen this program would be great. Philips CD-I system has a children's controller that looks like it's out of a Fisher-Price factory and if such a product were available for CDTV I'd be only too happy to recommend this.

NASA – The Heroic Age of Space £19.99 • Troika

This title uses Commodore's claim to answer to FMV, CDXL. Unlike FMV which can display moving images occupying the complete screen, CDXL can only handle a quarter of the screen.

The consequence on this particular title is a like watching a scrambled Sky Satell

CDTV and CD-ROM options

In addition to software there are also a number of peripherals now starting to appear for CDTV which add to the enjoyment possible. The more notable ones are:

Trackball Controller • £79.99 • Commodore

Basically an alternative way of controlling the pointer on the screen. A large ball is mounted in a casing. Rolling the ball in the palm of your hand moves the pointer onscreen.

Tracker balls have been available for the Amiga for a while but never really managed to rival the mouse for control. This one, although a good tracker ball, fails because CDTV software doesn't require the precise placement that tracker balls offer. The Trackball Controller also has interfaces for joysticks.

Video Genlock Card • £149.99 • Commodore

Allows you to take moving pictures from video camera, video player and the like and mix them with the display that the CDTV is producing, and then record this back out to a video recorder. Ideal for video titling-type applications.

Voice Master • £39.99 • Microdeal

Simply this allows you to add your voice to CDTV titles that support it. In language courses for instance you can pronounce the foreign language yourself to see how your version differs from the correct version. Limited by the number of CDTV titles that support it, but worth keeping an eye on.

MUSIC MACHINE
Selected Track:
05
IT'S MY PARTY

Karaoke –
it had to
appear on
CDTV
sometime,
I suppose



Cezanne STILL LIFE 1888

Louvre, Paris.

Cezanne stressed the form and volume of objects by simplifying and synthesizing outlines and arranging vanishing points above or below the horizon.

more...

Connoisseur contains stunning artwork from the impressionists...

channel. This is a shame because 'The Heroic Age' has real potential. The information is very interesting, the audio accompaniment is well done (you can for instance hear Neil Armstrong's immortal words as he first set foot on the moon!) and as a "multimedia" application it's pretty good.

It's just a pity it's not FMV! Hopefully when Commodore sort FMV out, Troika will come up with a follow up which will really show the CDTV off.

Psycho Killer • £29.99 • On-Line

Some has described this as the closest any CDTV title has yet come to an interactive movie. I wouldn't. It's long series of digitised photographs (of London) which you move through screen after screen.

The only action comes on certain screens where you must quickly move the pointer to a certain part of the screen and click the button. Get it wrong and you're history. Sadly lacking in excitement, graphics or enjoyment.

Sherlock Holmes Consulting Detective • TBA Icon Simulations

This review is of a brand new title from America, and was responsible for holding up this article! Just as I was about to send the copy off, through the door popped this title. At first I ignored it, but on closer inspection it merited holding the whole review back for.

Sherlock Holmes Consulting Detective is a title which is on most American CD-ROM owners' "must buy" lists and for a good reason.

This is no easy way to describe this - OK, maybe there is, but don't want to spoil the enjoyment you'll get from this when you see it, except to say that it features professionally recorded sound, nice atmospheric pictures and masses of quality CDTV moving pictures.

The narration is perfectly timed to the

CDXL pictures so you begin to believe that Sherlock and Watson are actually sitting there talking.

There are no rough edges and few unexplainable pauses as the next images/data is loaded. Best yet, instead of just dumping the graphics to the screen, a slide projector-type screen (complete with video-style buttons) pops up, in which the moving images are displayed.

This game will probably sell a lot of CDTV units in its own right and should be in every CDTV/A570 owner's collection - it's the best example yet of what CDTV is capable of. Buy it.

Sim City • £29.99 • Infogrames

A classic Amiga program adapted for CDTV. Unlike many other games converted to work on CDTV, this is far more than a straight adaption.

The concept of SimCity is to build a city, attract a population and then keep it going. Throughout this period various disasters befall you which you must also cater for.

SimCity is very absorbing and enjoyable and also has serious side to it to - all-in-all it's a great game. The CDTV incarnation builds upon the original with



Exekias ACHILLES AND PENTHESILIA 550 B.C.

Vase Painting, British Museum, London.

Achilles was a famous Greek warrior during the Battle of Troy. His body was magically protected except for his heel.

more...

...to ancient Greece, and all with educational notes

* impressive studio recorded sound, more than 10Mb of graphics and several new features.

At the ECTS trade show this was the application that picked up the very first CD-ROM software award. Highly recommended for any CDTV or Amiga CD user.

The Demo Collection • £19.95 Almathera

Following on from CDPD collection, the Demo Collection is a must for A570 owners, but not recommended for the CDTV owner. It contains loads of pictures, animations, fonts, games and two versions of the Amiga's operating system (1.3 and 2.04).

If you're a serious or hobbyist Amiga owner you'll find this a valuable CD-ROM, although some of the stuff could do with more documentation.

Wrath of the Demon • £29.99 REAHYSFT

This title didn't even start well. Three megabytes of data it boasts, great, but a CD disks can hold 550MB! Starting the game, things get a little better, with a very nice introduction sequence. Sadly it

goes nowhere from here. The remote control doesn't work with this type of game, the game graphics are average, pretty poor sound (given what could have been achieved) and limited game play. Nothing really bad, but nothing really good either!

Women in Motion • £29.99 On-Line

Another library of work from Eadweard Muybridge, this time a collection of rather unattractive naked women. Very peculiar, but once again useful if you're into animation and drawing, or slightly perverted...

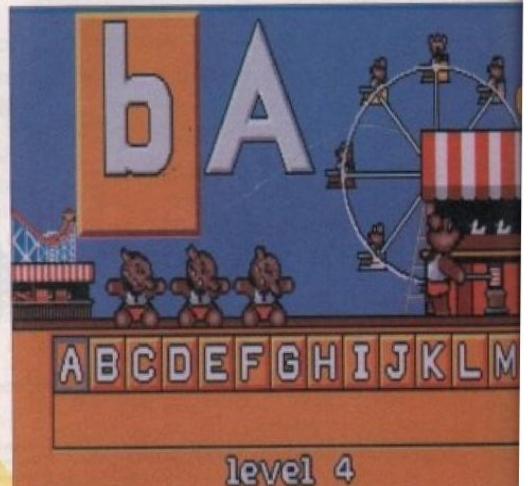
Xenon 2 • £29.99 • Mirrorsoft

A well known Amiga game, Xenon 2 is must for any CDTV players simply because it's a great game. But for Amiga users owning an A570 it's now a little of date compared to recent games released on floppy.

As a conversion little has been done apart from a new soundtrack from Brian the Bass added to accompany the game.

Fun School 3 is a collection of educational games for children. It includes sections for matching, actions, gallery, counting, letters, and painting. Each section features colorful illustrations and interactive elements.

Several excellent educational files are on offer...



...Fun School 3 allows learning through game playing

ENCYCLOPAEDIA of the CDTV

Is the CDTV really 'nothing short of revolutionary'? And is its software making the most of the machine's potential? CU takes a look at the good, the bad and the ugly...

***** - EXCELLENT **** - GOOD *** - AVERAGE ** - POOR * - DIRE

ARTS & LEISURE

Advanced Military Systems

Dominion £29.99

Armchair admirals, pillow pilots and couch corporals rejoice! Over 1,500 photographs accompanied by music and narration reveal everything you've ever wanted to know about the F-117A, Stealth Fighter and other smart weapons. ★★★★



movies are covered along with 15,000 actors and 5,000 directors. Famous films also have high-quality posters and photos of the sets. Out Soon.

The Family Circus Video Titler

Context Systems £tba

Transform your home videos with fun title screens and comic art. Sound Studio is incorporated to add fanfares, slapstick effects and applause. Can be used with the CD1301 Genlock (£149.99) to mix CDTV images with video from your camcorder. Out Soon.

Animated Colouring Book

Gold Disk £19.99

Hey, it's just like playing with crayons on your TV screen. Hours of pure entertainment can be had from choosing disgusting colour combinations for pictures of dogs, cats, and more. Cheap and cheerful if you're under five years of age. ★★

Cinemabilia

Media Sat Production £tba
An Interactive Dictionary of Film from Italy? Over 30,000



Fidofax

Intersearch Systems £tba

Yikes, *Fidofax* gets our vote for craziest CDTV title so far. This 'essential guide to choosing and caring for your dog' comes with 300 full colour photographs, three hours of audio



compiled by
Rik Haynes

and a canine identification game. You can even hear Rover bark!

Out Soon.

Gardenfax (series)

CDTV Publishing £34.99 each

Range of four discs (Indoor Plants / Garden Plants / Fruit, Vegetables and Herbs / Trees, Shrubs, Roses and Conifers) for budding gardeners everywhere. Unless you frequently use the search facility, a good reference book makes more sense than installing your CDTV system in the potting shed. ★★

Women in Motion

On-Line Entertainment £29.99

Fortunately, not a compact disc full of Viz's Fat Slags, but another compilation of classic Edward Muybridge Victorian photographs. Is it art or pornography? Slightly better than *Animals in Motion*, but will feminists campaign for the release of *Men in Motion*? ★★

EDUCATION

A Bun for Barney

Multimedia Corporation £34.99

Actor Tom Baker of Dr Who fame provides the narration for this interactive animated storybook aimed at preschool children. Kids can play games, make silly characters do funny things, and listen to songs. Words can be selected to hear how they should be pronounced. ★★

ENCYCLOPAEDIA of the CDTV

Asterix et Fils Learn French (two discs)

Eurotalk £29.95 each

Over 60 minutes of spoken French from 30 characters, 400 full-colour cartoon drawings and 1500 vocabulary items come on these two discs. Luckily, a complete English translation of the text is also provided. Optional sound digitiser and microphone improves your French accent. Out Soon.

Asterix y Hijo Spanish (two discs)

Eurotalk £tba

Similar to the *Asterix Learn French* product. 'We have produced a language program that is so addictive that even lazy learners will want to use it over and over again,' insists Andrew Ashe of Eurotalk. Out Soon.

Barney Bear Goes to School

Free Spirit Software £29.99

Storytime shows kids how to get ready for school while Schooltime allows them to select and play learning activities including spelling and counting games, recognising shapes and yet another electronic colouring book. Far too American for most tastes. ★★

Barney Bear Goes Camping

Free Spirit Software £29.99

We're quickly becoming totally sick of this brown fur ball and his cute antics. This time unlucky children take a walk in the North American countryside to learn about animals and, wait for it, visit the ranger for some 'nature facts'. Yuk! ★

Cinderella

Discis £39.99

Original fairy story edited by Greg Guderian. The 'reader' can click on any word in the text or on any item in a picture to see additional information including second language translations in French, German, Italian and Spanish. ★★★

Funschool 3 (two discs)

Europress Software £24.99 each

A refreshing change to see a bit of British product in the growing CDTV educational range. Top quality stuff for under fives or five-to-seven-year-olds. Learning can be fun with animated skill tests in number, shape, and word recognition. ★★★★

Heather Hits Her First Home Run

Discis £34.99

'Discis Books are easy to use and they show a child that learning can be a fun and rewarding experience,' assures a spokesperson for this Ontario-based company. Wonder if we'll spot *Heather Gets Laid* in the future? Hmm, very doubtful. ★

Japan World

Topclass Technology £49.99

Originally developed to enlighten Derbyshire children on Japanese language and culture following Toyota's decision to build a £700 million car assembly plant in the county. Subjects covered range from history and geography to art and travel, sport and food. Shows how this sort of product should be done. ★★★★



LTV English

Jeriko £34.99

A French way to improve your English? You've got to be kidding! A 'cultural approach' to the UK and USA is taken via a series of reports on daily life in London and Los Angeles. Get the idea? No, neither did we. ★

Mind Run I/II

CDTV Publishing £29.99 each

Designed to fine-tune your powers of memory, logic and reflexes. Don't expect that this series of exercises will test your intellectual aptitude any more than watching an episode of *The Krypton Factor*. ★

Moving Gives Me A Stomach Ache

Discis £34.99

There are presently ten titles available for the CDTV from Discis, this one is another case of 'fine-if-you-like-that-sort-of-thing.' If only these electronic books didn't look and sound so American... ★★

Mud Puddle

Discis £34.99

Author Robert Munsch strikes back! This time, Jule Ann tries to escape from the mud puddle that is chasing her. She has to find a way to outsmart this dirty son of a ditch. For children of six and older. ★

My Paint

Saddleback Graphics £29.99

Complete electronic colouring book with over 100 pictures to play with. Each is accompanied by sounds and animated symbols for the painting tools, and some of the drawings teach the alphabet and reading skills. Kids aged between three and nine years of age should have some laughs. ★★★

North Polar Expedition

Virgin Games £29.99

Snowbound role-playing adventure for groups of five to ten people. Simulates a journey to the pole with pictures and sounds from real Arctic expeditions. Can you make it to safety before the ice-pack begins to break up? ★★★

The Paperbag Princess

Discis £34.99

Robert Munsch gives your child another dose of traditional fairy tale fare served up in unique Discis fashion. The twist? Our feisty princess heroine must rescue an idle prince from the nasty dragon. Will they live happily ever after? ★★

Scary Poems For Rotten Kids

Discis £39.99

Youngsters are supposed to enjoy the Discis electronic books because they are enhanced by a variety of real voices, music and sound effects. *Scary Poems For Rotten Kids*, for instance, contains a blood-curdling scream at appropriate points in the verse. ★★★

The Tale of Peter Rabbit

Discis £39.99

These Discis Books are a bit hard to read at bedtime – or are they? The accompanying narration can be tweaked with variable pauses between phrases. More than 15 million copies of the original Peter Rabbit book have been sold since it was first published back in 1902 – will this CD version sell as many? ★★★

Thomas' Snowsuit

Discis £34.99

Hurrah, the return of Mr Munsch. Why won't naughty Thomas put his dreamy



snowsuit on? Can his Mother, Teacher and Principal make him wrap up warm for those cold winter months ahead? Who cares anyway? Not us, that's for sure. ★

ENTERTAINMENT

All Dogs go to Heaven

Merit Software £34.99

Help! It's another colouring book repackaged as a 'Talking Electric Crayon'. Based around the Sullivan Bluth animated feature film, telling the story of a streetwise German Shepherd. A bit of a flop, just like the original movie. ★

Battlestorm

Titus £29.99

Why has the Paris games publisher bothered to release this pathetic shoot 'em up onto the CDTV? And, more importantly, how many copies have been sold? This is really second-rate stuff so save your cash for something better. ★

Case Of The Cautious Condor

Tiger Media £34.99

Award-winning murder mystery thriller that doesn't boast a fortune in digitised graphics. You have a mere 30 minutes to solve the crime by interviewing the passengers and crew on a luxury thirties flying ship. Contains three hours of CD-audio and more than 700 originally-drawn colour pictures. ★★★★

Classic Board Games

Merit Software £34.99

There are far superior versions of Chess, Draughts and Backgammon available on the PD circuit. Trouble is, you'll need an additional CD1220 keyboard (£49.99), CD1252 mouse (£49.99) and CD1411 floppy disk drive (£99.99) to enjoy them! ★

Defender Of The Crown II

DTV Publishing £29.99

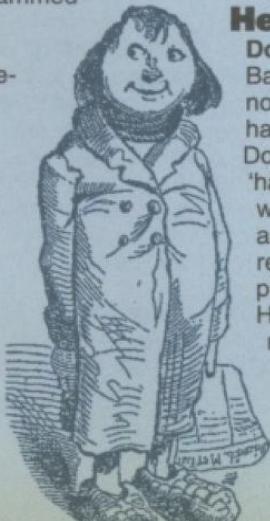
Commodore has decided to produce an extended and improved version of this classic Amiga game from the now-defunct Cinemaware. The original artist, Jim Sachs, has reprogrammed the entire title and introduced extra gameplay features, graphics, voice-over and animated sequences. Out Soon.

Dinosaurs for Hire

Wright Systems

£16.99

Nobody seems to know much about *Dinosaurs For Hire* or its developer, Wright Systems, but at least this 'edu-



Battle Chess

Interplay £44.99

First seen on the Amiga, this action translation of the classic boardgame has some stunning enhancements over its predecessor. For starters, there's a 35 minute tutorial combining over 9,000 frames of animation, sampled speech and a professionally-composed music score. This 'mini movie' brings the history and rules of chess to life. The text was researched by a TV script writer who managed to discover a little known fact that the Queen couldn't move around the board in ancient times. Interplay has also inserted more animated graphics and sound effects inside the game itself. Some of the combat sequences have been reworked but the humour remains intact. If you've never played this interpretation, each piece can actually walk around the chess board and destroy their opposition in spectacular fashion. BattleChess features 10 levels of play and an opening library of 30,000 moves. Take a look at the asking price, though. Ouch! ****

tainment' title is cheap. Could be worth a look if fossils are your thing.
Out Soon.

European Space Simulation

Coktel Vision £34.99

It has taken this Paris-based company over two years to bring the CD adaption of ESS to our screens. The game is basically a resource management affair where space shuttles and orbiting stations can be organised to your heart's content. ★★

Falcon

Spectrum Holobyte £49.99

Fifty quid for a combat flight simulation converted over from the Amiga is a rip-off, right? On a positive note, *Falcon* puts the audio and video facilities of the CDTV to good use. Mission briefings come with footage and spoken descriptions of the aircraft, flight procedures and scenario. During the game, you can hear verbal instructions from the control tower and pilots speaking to one another. ★★★★

Future Wars

Delphine Software £34.99

This premier 'Cinematique' graphic adventure captured the imagination of players in Europe, USA and Japan. Can you prevent the alien storm troopers from taking over the world? Many believe *Future Wars* holds more substance than, say, *Operation Stealth* or *Cruise For A Corpse*. Highly recommended. ★★★★

Herewith The Clues

Domark £29.99

Based on the famous murder mystery novel by Dennis Wheatley, who just happens to be a relative of the boss of Domark. It's rather like those practical 'hands on' history projects at school, where you have to piece together assorted photographs, letters, records and other clues. Exhibits displayed as ray-traced 3D objects in HAM mode and CD-quality incidental music help to spruce the product up. Out Soon.

The Hound of the Baskervilles

On-Line Entertainment £29.99

Interactive interpretation of Conan Doyle's classic detective story featuring Sherlock Holmes and his trusty pal Dr Watson. Similar in nature to *Herewith The Clues* with plenty of journals, newspaper cuttings and police reports to sift through. Fine until you've played it a couple of times. ★★

Indiana Jones and the Last Crusade

CDTV Publishing £34.99

Lucasfilm Games' brilliant graphic adventure based, naturally enough, on the third Indy movie is further enhanced by the thrilling John Williams music score coming straight off the compact disc. The game designers worked from the original script, set designs, effect sequences and props of the blockbuster Stephen Spielberg/George Lucas film. Great stuff. ★★★★

Lemmings

Psygnosis £34.99

Considering this game comes 'free' with the CDTV, none of the superior hardware capabilities of your new machine have been put to any decent effect. Despite this oversight, you won't find a better arcade puzzle game on the machine as this is just as addictive and just the same as the game that originally appeared on the Amiga. ★★★★

Many Roads to Murder

CDTV Publishing £29.99

There certainly seems to be a lot of murder mysteries to solve on the CDTV. Is this Commodore device selling in large numbers to the police force or private dicks? Like the real thing, this outing is best avoided. ★

Murder Anyone?

CDTV Publishing £29.99

Like we said before, you can have too much of a good thing. Sadly, *Murder Anyone?* doesn't even qualify for that compliment. Is the victim's spinster sister keeping any secrets from you? What about that shifty playboy brother of his? The trick is in staying awake long enough to find out. ★

ENCYCLOPAEDIA of the CDTV

Murder Makes Strange Bedfellows

Tiger Media £34.99

Sequel to *Case Of The Cautious Condor* with even more characters to meet and plot twists to explore. Remember *Aztec Challenge* and *Forbidden Forest* on the C64? Their creator Paul Norman now provides the extensive sound support for all Tiger Media games. Out Soon.

A Night at the Races

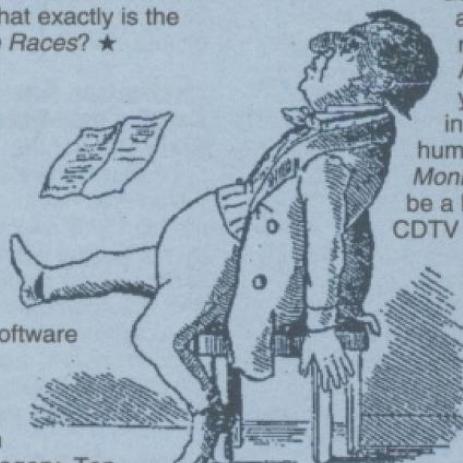
Context Systems £29.99

Experience a few thrills of the racing track as a rich owner or betting punter. Sorry, even that strange bloke from Channel Four Racing is more entertaining than this effort. What exactly is the point of *A Night at the Races*? ★

Ninja High School Comix

Wright Systems £16.99

It's that mysterious Wright Systems again. How does this outfit make a profit from making the cheapest CDTV software available? Like *Dinosaurs For Hire*, this product really should to be placed in the Arts & Leisure category. Top marks for a truly awful name. Out Soon.



Prehistorik

Titus £34.99

Not exactly in the same league as Core's *Chuck Rock*, *Prehistorik* is another crazy caveman caper with 30 levels populated by icy lands, jungles, spring boards, clubs and unfriendly Chimp-a-gogo creatures. ★★

Jack Nicklaus Golf - CDTV

Accolade £39.99

Realism is the key word for this sizzling sports simulation. Over 30 photographers and technicians painstakingly walked across every inch of Muirfield Village Golf Club in Ohio, USA. The 9,000 digitised stills they took of this infamous golf course have been rendered as HAM screens and overlaid with 16-colour sprite animations of the golfers. Accolade is also using actual photographs of Jack Nicklaus in action. An original digital musical soundtrack and over 20 sampled sound effects add atmosphere. Hear dogs bark and leaves rustle in the trees as you go for that final putt on the 18th hole. Keep an eye and ear ready for it. Out Soon.

Psycho Killer

On-Line Entertainment £29.99

Employing the Jeremy Beadle method of creating a CDTV game, Fergus McNeill and some friends took a trip out to the countryside with a camcorder and came back with an interactive shocker movie. *Psycho Killer* could have been better. A sequel is currently in production, let us hope they've learnt from their mistakes. ★

The Return of Medusa

Starbyte £tba

Remember Virgin's *Rolling Ronny*? Starbyte were the chaps that produced it. *The Return Of Medusa* is a fantasy adventure from the same team. Out Soon.

Secret Of Monkey Island

CDTV Publishing £34.99

The floppy-based *Monkey Island* duo of graphic adventures from Lucasfilm

Games in the states are seen as the pinnacle of their genre. A swash-buckling yarn brimming over in outrageous humour, the first *Monkey Island* is sure to be a hit among the CDTV fraternity. ★★★★

Spirit Of Excalibur

Virgin Games £34.99

Cross between a fantasy role-playing adventure and arcade game,

Spirit Of Excalibur brings 2.5 megabytes of graphics and orchestrated music and sampled speech. Out Soon.

Super Games Pak

Oddysey £29.99

Relive the 'golden age' of arcade gaming with *Jailbreak*, *Byteman* and *Deathbots*. What the heck is this doing on Compact Disc format? ★

Town With No Name

On-Line Entertainment

£29.99

Inspired by the ageless Spaghetti Western movies starring Clint Eastwood and his Axminster rug, *Town With No Name* is another CDTV title put together with the Desktop Video authoring system by On-Line Entertainment. ★★

Tiebreak Tennis

Starbyte £tba

Can this relatively unknown German software developer compete against the might of *Pro Tennis Tour II* from Ubisoft? We'll have to wait and see. Out Soon.

Trivial Pursuit

Domark £34.99

Domark's multimedia extravaganza has been brought to life with an injection of over 2,000 questions, stereo sound effects and music, cartoon animations, digitised pictures and voice-overs from popular actors. Good choice for the family. ★★★★

Ultimate Basketball

Context Systems £29.99

Below par simulation of this engrossing indoor sport. A halftime show with female cheerleaders goes to show that sexism among programmers is still rife. ★★

Wrath of the Demon

Readysort £29.99

A hack 'em up with over 3Mb of graphics data, 600 screens of action, more than 100 monsters and 1,400 frames of animation. *Wrath Of The Demon* for the CDTV isn't radically different from its computer cousin. Players go on a quest, through swamps and temples, to destroy an evil Demon and rescue the princess. Aaargh! ★★★★

Xenon II: Megablast

The Bitmap Brothers £29.99

Probably the closest Betty Boo and S' Express will ever come to a video game. This respected blaster has been customised with music, digitised pictures and biographies from various Rhythm King artists. The original Bomb the Bass Megablast soundtrack has been remixed using Roland Sound Space (RSS) for 3D 'surround sound' effects from any ordinary stereo source. Isn't it about time The Bitmap Brothers got stuck into *Xenon III*? You betcha. ★★★★★

MUSIC

CD Remix II

Microdeal £29.99

Ever wanted to make a personal remix of your favourite CD single? With *CD Remix Version 2*, you can jump around a track and overlay any of the 600 sound effects, speech or drum beats that are included. Limitless larks. ★★★★

Karaoke Hits I/II

Music Sales £16.99 each

Get into the Japanese singing craze without embarrassing yourself in front of the locals at The King's Head. All the

Sherlock Holmes Consulting Detective

ICOM Simulations £39.99

Something of a breakthrough in CD-ROM games, *Sherlock Holmes* is already a success on other platforms like the NEC PC Engine console and Fujitsu FM Towns in Japan. ICOM Simulations has managed to squeeze over 90 minutes of full motion video into this jaunt of interactive investigation. To solve each of the three murder mysteries, players must match their wits with Sherlock himself. The video portion of the game was produced like a short feature film with 50 speaking parts for 25 actors, 70 period costumes and 25 Victorian sets needed to create the illusion. Programmers then digitised the video and blended these images with computer generated graphics and hand-drawn illustrations. The dialogue audio was also digitised and synchronised with the video scenes. Don't miss it. ★★★★

usual popular songs from the past are included in these two discs. ★★★

Musicolour

Virgin Games £34.99

Teach yourself how to compose and read music via the world-renowned Candida Tobin method. No previous musical knowledge is necessary. Ideal for primary school children, *Musicolour* can be used as part of the National Curriculum. ★★★



Music Maker

CDTV Publishing £34.99

Anyone can create music with this easy-to-use program. Choose one of the 17 song tracks, select one of the 40 instruments and away you go. ★★★

SimCity

Maxis £29.99

Managing a town and community sounds boring, but this game is incredible. No wonder it's picked up more awards than anybody can care to remember. *SimCity* lets you create your own city complete with homes, shops, factories, parks, crime, sea ports, fire stations, airports, pollution, sports stadiums and, yeah, little people. Bad planning may result in a ghost town or a prison sentence. An 'approval rating' keeps you updated on the progress in winning the hearts and minds of those fickle citizens. If this rating gets too low, you can kiss that cushy mayor's job goodbye forever. Also watch out for floods, earthquakes, fires and even a rampaging monster! ★★★★

Voice FX

Microdeal £19.99

'Sing along with your favourite artist and change your voice from Burl Ives or Michael Jackson to Terminator 2 or R2D2,' goes the sales pitch. This is real-time voice-changing software and is for use with *Voice Master*. *Voice FX* has 11 different effects such as pitch down, reverse, robot, ramp and reverb. ★★

Voice Master

Microdeal £39.99

This microphone and interface allows you to scream at programs like *Asterix et Fils Learn French* (Eurotalk) or *Voice FX* (Microdeal). ★★★★

REFERENCE

The American Heritage Illustrated Encyclopedic Dictionary

Xiphias £49.99

Why must the Yanks spell words differently like 'color' and 'thru'? Not much substance here for your cash. Over 180,000 entries with 3,000 colour illustrations and an automated word pronouncer and speller. What about a British version? ★★

Complete Works of Shakespeare

Animated Pixels £29.99

Read all the plays, poems and sonnets that have become part and parcel of English history. Instant search facility for single word or phrase. Complete with woodcut illustrations. ★★★★

Dr. Wellman - Family Health Adviser

CDTV Publishing £54.99

Expensive way for hypochondriacs to electronically browse through their worst nightmares. Provides a dictionary of over 600 explanations for medical names, terms, symptoms and conditions. Around the world section gives some handy tips for worried travellers. ★★★

Hutchinson Encyclopaedia

CDTV Publishing £49.99

Reference tool with over 25,000 entries, 1.5 million words, 250 sound clips and 2,000 photographs. Supplied 'free' with the CDTV. ★★★

The Illustrated Holy Bible

Animated Pixels £29.99

It's all here! The Bible as you've never seen it before with deluxe full-colour illustrations. Contains the entire text of the Old and New Testaments together with full colour illustrations. Instant search and slide show facilities are built in. ★★★★

Illustrated Sherlock Holmes

Animated Pixels £34.99

Rediscover the complete set of 60 absorbing stories detailing the exploits of the world's greatest and most eccentric detective. Over 250 colour illustrations relate to the text and there's a quiz for each story. Wouldn't it be great to see a battle of logic between Spock and Sherlock? ★★★★

NASA... The 25th Year

Troika Multimedia £tba

Recapture the excitement of the Apollo moon landings or first space shuttle flight. Adapted from a National Aeronautics and Space Administration (NASA) film, this Troika release employs the CD-XL software technology from Commodore. This produces partial screen motion video at 10 frames per second. Out Soon.

The New Basics Electronic Cookbook

Xiphias £39.99

First appearing back in the days of the Commodore Vic-20, this type of cookbook has never done the job well. Comprises full-colour photographs of 450 recipes and their ingredients with voice-overs by the well-known authors. Budding Fanny Craddocks or even Galloping Gourmets should definitely take a look. ★★

Time Table (series)

Xiphias £39.99 each

Current Time Table titles for the CDTV examine Science and Innovation, Arts and Entertainment and Business, Politics and Media. Titles planned for the future will cover Religion, Human Thought, Sports and Daily Life. A 'hot word' and key word searching facility allows you to quickly skip to the important sections of these detailed multimedia reference works. ★★★

World Vista Atlas

Applied Optical Media £54.99

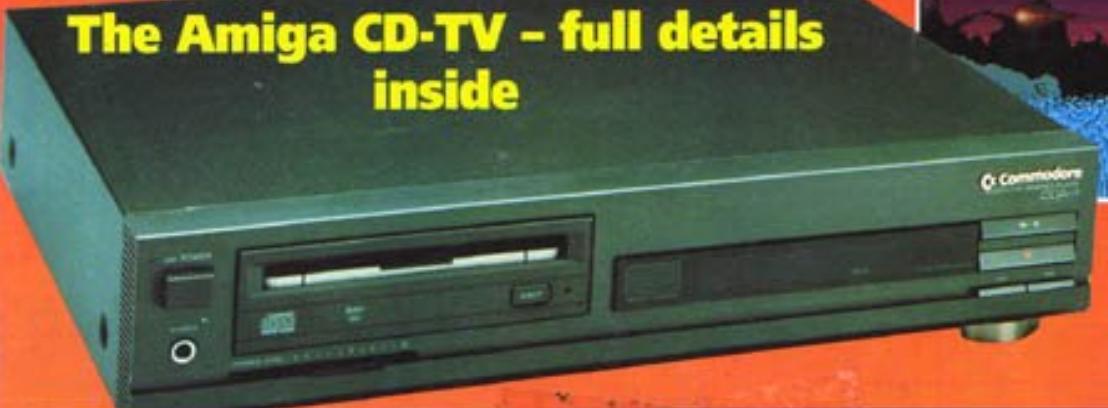
By the time you've loaded this disc into a caddy, waited for the program to load and located the correct point on its scrolling map, you could have simply picked up a book, got the information required, ordered a pizza and made a cup of coffee. The supplementary information is far more useful than the maps themselves. What a waste of space! ★

ACE

ADVANCED COMPUTER ENTERTAINMENT

IT'S HERE!

The Amiga CD-TV - full details
inside



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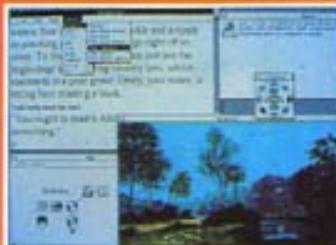
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3D SENSATIONS

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Triumph of the game



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Magnetic Scrolls
new game system

RED HOT!

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Ninja Turtles

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reviewed and
previewed



Dear ACE, Why do you keep on covering CD technology?

As we went to press, the launch of the 'CD Amiga' was rumoured to be only days away. After months of denial by Commodore, ACE secured exclusive details from the States – with the proviso that there may be minor alterations to the specification prior to launch. Here's the full story...

...HERE'S WHY!



The Commodore CD-TV. Note that this photograph is of a pre-production model – there may be minor variations in the appearance of the final version

It's called the CD-TV – and the name is important. This isn't just an Amiga with a CD-ROM, this is a whole new ball game.

First, Commodore intend this to be the machine that blasts computer entertainment into every home. Even the Dickenson-Smythes are going to find it difficult to resist this one, however snotty they may have been about their next-door neighbour's addiction to *Xenon II*. Not only does the unit play all their music CD's (it has music CD routines built into ROM so you can do all the clever things that expensive, intelligent CD players can), but it will also offer access to a library of software quite unlike anything seen before on a home computer. Check out the software panel elsewhere on this page.

Second, the technology of the unit goes beyond a simple Amiga with CD-ROM attached. So far, CD-ROM's have simply been mass storage devices (mainly attached to PC's and PC Engines). The advantage is

that you can store tons of graphics and sound data, but the disadvantage is that you can't pull all the data off the disk at once. In particular, you can't pull sound and graphics data simultaneously, so you're unable to implement what is often referred to as 'talking head technology'. TT means being able to animate a computer graphic and pull accompanying sound off the disk at the same time.

The CD-TV has full talking head capability. That means you can add a whole new dimension of sound to existing Amiga titles, and develop new ones that really make use of the CD quality stereo the system offers. You can also map Amiga generated sound over CD stereo tracks. And since you have the equivalent of 700 Amiga disks on a single CD (which costs less to produce than two floppies)

you've got a lot of space for sound and graphics.

The problem of pulling data off the disk also effects another potential use of CD. Since your CD has the storage capacity to hold video images, it would be nice to present real-life video (or animation) footage within games – like the old Dragon's Layer laser disk games, for example, or a film license with actual sequences from the movie.

Unfortunately this means pulling even more data off the disk than it does to reproduce sound.

Commodore are making the extraordinary claim that they will be producing a Full Motion Video (FMV) adapter for the CD-TV. This upgrade will be possible because of the 'open architecture' design of the CD-TV which positively encourages upgrades and third-party add-ons to be connected to the unit.

If this FMV adapter does materialise, then the CD-TV will offer a complete home entertainment system for playing music CD's, videos, and computer entertainment titles that combine stereo sound and FMV. Add the existing colour graphic and sound capabilities of the Amiga and you really do have the entertainment machine of the future. And that's what ACE has been campaigning for for the last twelve months. At last, it seems, the machine has arrived that could serve as a platform for truly Advanced Computer Entertainment.

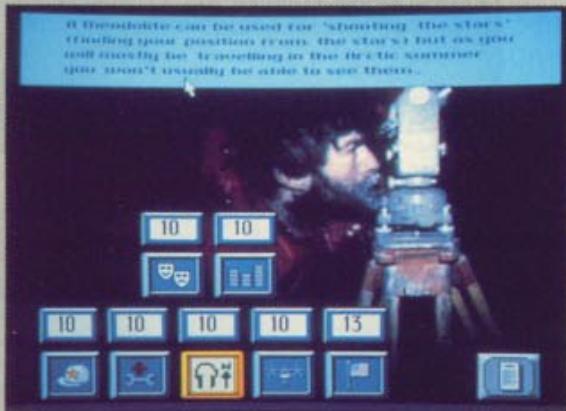
AMIGA OWNERS UPGRADE

Yes, existing Amiga owners will be able to upgrade to full CD-TV capability later this year. Commodore plan to produce a small unit that will connect onto your Amiga (512K or 1Meg) as soon as possible. 'Those Amiga owners are very, very important to us,' said Gail Wellington of Commodore, 'and we aren't going to let them down.'

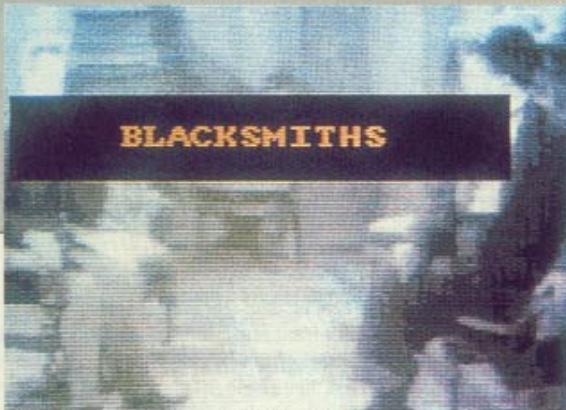
THE COMMODORE CD-TV



Lucasfilms are working on CD-TV projects. We expect one of the first to be Loom, since the game features a musical theme that could be ideally suited to the CD-TV's audio capabilities. And next? A version of Indiana Jones with stills from the movie?



Virgin's North Polar Expedition, recently translated onto PC (see page 61), will be the company's first conversion for the CD-TV.



CRL are very excited by the CD-TV as it offers the perfect hardware platform for their new range of hypergames, produced using their DUNE system (reported as EGADS in the ACE Hyperissue No 30). The first DUNE titles, Herewith the Clues, is to be completely re-programmed, using new high quality photographic material

CD-TV TO AMIGA UPGRADE

Although the CD-TV comes without a keyboard, you can upgrade it easily by adding a unit due for launch later this year that will give the machine full Amiga capability. You can word process in the morning and explore the North Pole in the evening all on the same machine.

THE GAMES

Everything's here to produce the games machine you've always dreamed of. Two player IR interface, overlaid CD sound and Amiga sound, IR remote controls, the existing Amiga graphics capability, MIDI for blasting synth accompaniment, high score RAM cards, and the promise of full motion video in the future. Wow!

So what's going to hit the shelves in the near future?

The answer, predictably, is nothing like as much as you'd like. ACE has uncovered a large ring of UK software companies who are producing software for the CD-TV, but none of them (except Virgin) were prepared to discuss their plans with us since this article was prepared before the official launch of the machine. However, we can make some firm predictions...

First, there are the titles Commodore have organised for the machine's launch. These include products from Rand-McNally (an interactive atlas), Lucasfilm (what's the betting it'll be a version of Loom with enhanced audio?), Virgin Interactive (North Polar Expedition), and even some CD-TV versions of the famous Beatrix Potter stories for younger (or young at heart) players.

There's a superb foreign language disk as well, where you can click on words and hear them spoken in French, or Spanish, or whatever. And of course the CD means proper human speech – none of this synthesised rubbish any more. One application – the Family Health Adviser – even diagnoses common family illnesses. And Jack Niklaus himself will be giving you practical tips on golf and shots of him playing in the CD-TV version of Jack Niklaus Golf.

In fact, most British and American software houses have expressed an interest in producing software for the machine, giving it a greater degree of support than any other computer has had at launch to date. That in itself must be encouraging.

Naturally, many softco's will be producing enhanced versions of existing games and the two player IR interface bodes very well for the latest trend towards multi-player entertainment.

New software design techniques are also promised, as programmers produce scenarios with variable difficulty levels for each player character, allowing, for example, better game masters to compete on equal terms with their younger relatives. 'We're looking forward to a whole new category of family games,' said Commodore's Gail Wellington, '...where people can play together and the level of difficulty suits EVERY player, yet all are involved in the same scenario. This is very much a home information or entertainment device.'

In fact, it could be the final realisation of the Amiga dream – persistently marketed since birth as a business machine, against all the instincts and desires of us game masters, the CD-TV could give it a glorious games rebirth.

THE NITTY GRITTY

Price: UK price not yet certain, but US price under \$1000 (just over £600).

UK Launch Date: Not yet fixed, but the September CES show in

London seems a possibility. Should definitely be before Christmas.

System Overview: An interactive consumer product cosmetically resembling a VCR, intended for the home environment. Easy to use via infrared remote device and based on Amiga technology. Consists of a CD-ROM drive with CD-Audio capability, real time clock, and remote controller. It can be easily connected to a TV or monitor and stereo system. It is targeted at the family or audio entertainment enthusiast.

Objective: To give easy access to unlimited educational, informational, and entertainment-oriented potential using the multimedia features of graphics and sound.

Major functions:

- Playing Amiga CD ROM software which can integrate various qualities of audio
- Playing CD quality audio while displaying graphics (CD+G)
- Playing standard high fidelity CD-audio disks
- Can be expanded to an Amiga computer
- CD midi out to drive other music devices

CPU details: internal circuitry based on existing Amiga design with additional custom chips for handling the CD-ROM interface and infrared control.

Memory: 1 Mbyte RAM, 2K non-volatile RAM for system (clock, preferences etc), 512K ROM including audio CD routines.

Internal slots: Intelligent video slot (for optional genlock etc) 15 pin edge connector; DMA slot for networking etc...

Video outputs: Analog RGB, Digital RGB, Composite video, component video Y-C, RF modulated, optional genlock capabilities

Graphics display: 320*256 non-interlaced 32 colours

640*256 non interlaced 16 colours

320*512 interlaced 32 colours

640*512 interlaced 16 colours

Video display 512 lines, 50Hz, 6 bitplanes, 8 sprites per scanline

Ports: Centronics, RS232, external floppy disk, controllers, MIDI out, stereo headphones, personal RAM card for status storage (up to 64K)

CD-ROM SPECS:

Sony/Philips type CD-ROM

Data readout 153-171 Kb/second (2Mbytes/second in burst mode)

Average access time 0.5 secs

Data capacity: 540 Mbytes

Capable of sound mapping Amiga-generated sound over CD sound

ON THE CARDS

The CD-TV also features a plug-in smart card capability, allowing the user to store high scores and other information on RAM-card. This could also be used to program your favourite audio CD's (which tracks to play etc).

IN CONTROL

The CD-TV comes with a special infra-red controller featuring 10 function keys plus shift key to offer 20 options in total. There is a console-type control pad and two select keys. The unit also offers CD audio controls - reverse, forward, play/pause, headphone volume, and stop keys. In case of disaster, there's even a complete reset function. Optional accessories will include:

- Floppy disk external drive
- Trackball
- RAM/ROM cards
- Genlock
- Keyboard IR interface with track ball
- Keyboard
- Two player IR interface
- Modem



The CDTV was the first dedicated stand-alone CD system to reach the market. Unfortunately, although it has been on sale for quite a while it's still failed to clock up the numbers, with sales only barely into five figures. The launch of the A570 (and soon the A670 and the 2000/3000 version) should help to get more software developers interested which, so the plan goes, will develop into a spiral of more software -> more users -> more software.

At the moment things are looking up. There are lots of impressive pieces of software in development, including the stunning *Microcosm* from Psygnosis and the equally interesting *CDTV Football* being produced by Commodore themselves.

HEROIC AGE OF SPACE FLIGHT - NASA THE 25TH YEAR

This is the first in what promises to be a fantastic series of interactive compact discs from Troika. *NASA The 25th Year* runs for over 50 minutes and chronicles the American space teams epic struggle to conquer the stars over the last 25 years.

By using an extremely effective blend of real documentary video footage from old news reels and scores of easy to access menus, the disc allows you to sit back and watch the whole story of space flight unfold before your eyes. The CD is crammed full of information that can be located at a click of the remote buttons and called up in an instant or you can simply watch the entire 'movie' experience from start to finish.

Every subject that's ever been covered by the national press is at your disposal not only to read about but to relive as you watch the actual film footage of the

Rest of Gemini Flights
"Up" and "Down" arrow keys scroll the text.
A button advances through the images.

Display Images

Info

Help

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THE CONNOISSEUR - FINE ART COLLECTION


Now this is the sort of software Commodore were hoping would sell their CDTV baby to an entirely new consumer when it was first released. Immediately the CDTV was targeted at the older user, the sort of person who was into the quieter more relaxed things in life and not at all interested in those new fangled games thingamajigs. They were so desperate to attract this new consumer that they tried to pretend that essentially what everyone knew to be correct, i.e. that the CDTV is basically an Amiga in a box with a CD-ROM, was wrong. How quickly they changed their minds when sales didn't take off.

Anyway, with *The Connoisseur* you are able to enjoy over 400 works of fine art in your own home. The disc uses full colour pictures of the most famous paintings in the world and covers nine periods of art history from Classical Greece through to the 19th century Impressionists. The disc is topped up with all kinds of notes for each period, artist and painting and there's even some classical music covering the times thrown in for good measure. Not everyone's cup of tea and there's nothing here that you couldn't get out of a single book.

NORTH POLAR EXPEDITION



I have to admit, Sir Ranulph Fiennes is one of my all-time heroes. He belongs to the old school of British explorers when we could still hold our heads high in some areas of endeavour. If anything had been achieved that was remotely notable in the world you could be sure a Brit had a hand in it somewhere.

So it's with great distress that I opened up the rather large box that has since become this game's coffin. The basic idea is for you to guide a group of intrepid explorers along the very path that Mr Fiennes trekked all those years ago when he circumnavigated the world and made his epic journey to the North Pole. By simply answering a series of multiple choice questions at the beginning you are thrust into a tent at the beginning of your journey.

The game throws hazard after hazard at you as your tents catch fire and skiddos run out of petrol. By simply choosing the right response from a list of answers of what to do the computer determines your progress. This is dire and boring stuff indeed. The game isn't even saved by the use of actual photographs taken enroute during the original expedition.

This could have been an excellent interactive adventure, but it's not. If you want to experience the thrill of Sir Ranulph's adventure you're much better advised to sit down with a copy of his book *To The Ends Of The Earth*, which as it happens comes free with the game. Good reading.

CD-ROM FOR THE IBM PC



The main use of CD technology on the PC at the moment is CD-ROM. Although the technology is still relatively new, there is quite a substantial software base already available for it, covering everything from games to business utilities. Multimedia PCs (or MPCs as they're being called) are starting to crop up everywhere and most of the major software houses are taking note.

Although the majority of games supporting CD-ROM are currently just shovelware – existing floppy-based games shoved onto a CD with no modifications – several companies are starting to test the water with CD-ROM specific titles. Virgin's imminent *The 7th Guest* is one such game, using full-motion video and digitised actors to create the illusion of walking around a haunted mansion. Ghosts hover in between tables, pictures ooze out of their frames, people wander around going slowly mad, all in Super-VGA video motion.

CD-ROM's only main drawback is that disc accessing time is still comparatively slow compared to conventional systems and in its present state it doesn't look like becoming a serious threat to replacing hard drives. It's getting better though and before long it wouldn't be too surprising to see CD-ROM drives becoming standard fittings for PCs.

SHERLOCK HOLMES CONSULTING DETECTIVE



The only thing really wrong with this digitised delight is that it doesn't have Jeremy Brett and Edward Hardwick as Holmes and Watson. What it does have, though, is around 90 minutes of full-motion video, three separate cases and awful English accents.

The first time you load up the game you are guaranteed to have a crowd around you. The animated casebook flips open and the master detective appears on the screen, nestling in his armchair and clutching his pipe, introducing you to the game. You'll tend to notice the occasional pauses while the disc accesses the next segment of video, but providing your machine is fast enough it isn't much of a problem.

Each case starts off with a video clip setting the scene, from where you set off around London to eliminate the impossibilities and solve the crime. You can consult pages from the London Times,

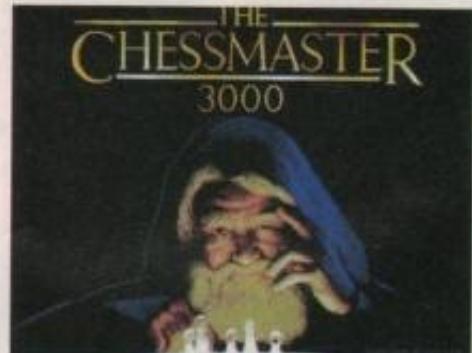
send your Baker Street Irregulars off to follow people or even call in on the blundering Inspector Lestrade. Each time you visit somewhere pertinent to the case, you are treated to another video segment. What's nice about it all is that the video isn't everything (although it's tempting just to keep watching and marvelling at it all). Clues can be gleaned from plenty of sources and, as with the real thing, it's extremely difficult to come up with the solution.

That's possibly its other problem: it can be a little frustrating for novice adventurers. Luckily, scenes can be replayed for those not quick enough to spot things first time round. The whole business of looking up files in your notebook, comparing them to information in the newspapers and sending off your irregulars to investigate is a good example of the other main use of CD-ROM, the ability to store lots of data and cross-reference it with ease.

As a game you may tend to find *Sherlock Holmes* a tad on the tricky side, but then it would be pointless to let you solve it all in a week. Despite this, *Sherlock Holmes* is an amazing product, both to play and to show off CD-ROM's capabilities. It's kind of fortunate that this product has arrived as early on in the CD-ROM's evolutionary stages as this, as it surely means that future products, both from ICOM Systems and others, will be even better. Just look at the floppy-based software industry for an example.

THE CHESSMASTER 3000

As chess games go, the Chessmaster series has



always been one of the strongest names. The *Chessmaster 3000* was available before this multimedia version was produced, but unlike the crop of shovelware that dominates the market, The Software Toolworks has actually made some significant changes to take advantage of the technology.

The most notable of these changes are the audio files that are now used for analysing games, offering advice and teaching you the rules. For the 'Chessmaster' you get an elderly but wise sounding man, for errors and rules you are taught by a soothing, female voice.

Not only voices but graphics. Full 256-colour VGA is used to display the board and the pieces and 3D modelling is used to allow the play area to be placed in any rotation. You're also allowed to annotate your own games should you have the use of a microphone. The other main use of the CD is to store the data from classic games of chess and use them in the game, either to analyse or as a setup for a computer opponent. *Chessmaster 3000* quite simply has virtually anything the professional chess player can want.

CDTV GAM

Is CD-ROM really destined to a life of running audio-visual encyclopedias? Tony Horgan takes a look at the first of two games that Psygnosis hope will change the face of CD gaming forever.

NEW ANGLES

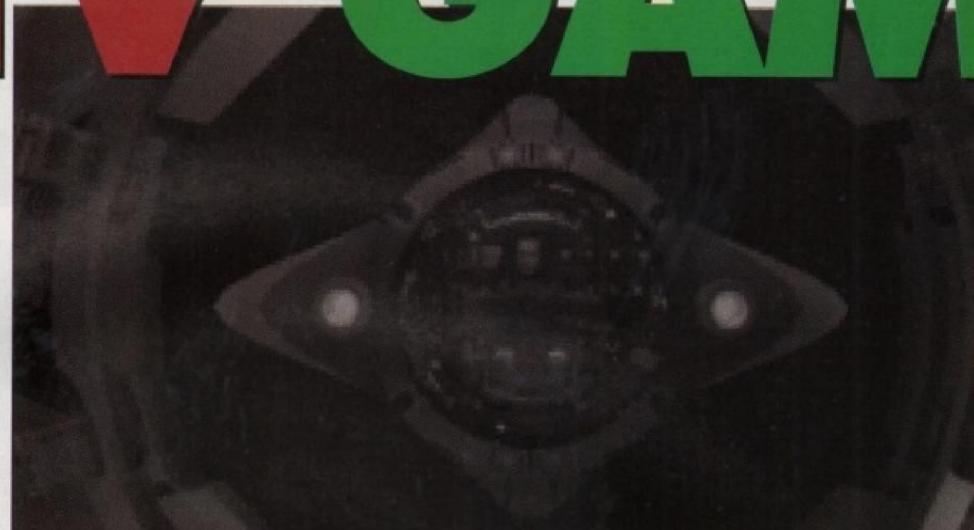
We all know that CD-ROM holds huge potential for games. Despite having 600Mbs to play with, and the opportunity to spool video animation and CD quality sound direct from the disc, so far we've been offered nothing more than ports from existing floppy games. Determined to make their mark on the new-born CD games market, Psygnosis have approached the job from a completely different angle, and the results are just about coming to fruition.

First off the blocks is likely to be *Microcosm*. Taking the basic theme of the two films *Fantastic Voyage* and *Inner Space*, it's an epic action adventure that's had a development team of around 32 people working on it for the last 12 months.

It's the year 2051, and one corporate buy-out after another has lead to the formation of two massive companies, with the finances of the world depending on their success and failures. Both have decided that there's no room for the other. However, while one attempts to get the upper hand through honest business dealings, the other resorts to more sly tactics. They've implanted information-extracting computer chips into the brain of rival company boss Korsby, the plan being that they can now predict their competitor's future deals, and take action accordingly.

INJECTED WITH A POISON

Playing the role of an air-ace of the future, you're miniturised, injected into the boss's bloodstream, and given the task of finding and destroying the implant. In typical Psygnosis style, it will be fronted by an extravagant intro animation, which sees the camera zoom into a planet surface from outer space, down through



MICROCOSM



Some scenes in *Microcosm* are very similar to the film *Inner Space*, especially the shots of the ship travelling in the arteries.

the cloud base, swooping into a futuristic cityscape, along the alleyways and streets, through a window into a lab containing Korsby's body. Entering one of the life-support tubes connected to the body, the player is sucked into the blood system, and takes control of the craft.

You might think that's the last of the fancy graphics, but that's where *Microcosm* is different. That same cinematic quality visuals continue right through the game itself! You're put in control of a minute bioship, hurtling through the veins of Korby's body. Not for the squeamish this one – the inside of the veins look horribly realistic, with strings of goo hanging down like stalactites. In fact, it's just like in those med-

ical documentaries that always come on when you're having your tea, with a surgeon poking a pointy little camera on a wire down some poor soul's various pulsating orifices.

24-BIT SLIME

It's light-sourced colour 3D all the way, but there's not a vector or polygon in sight. Instead, everything has been ray-traced on professional 24-bit systems, down-converted for Amiga/CDTV compatibility, and written onto the CD. Once in the game, the background images are loaded from the disc, and played like a series of multiple choice animations, depending on which route you take.

The real action takes place over the top of these stunning backgrounds. On your way to the brain, you'll have to fight off countless enemy ships, implanted to stop any such counter missions such as your own. Any new development is accompanied by a brief cut-scene, showing for example, a full-screen close-up of your ship as it bobs and weaves through the tunnels.

This is just the stuff to kick start the CDTV and CD-ROM scene. If this doesn't set the market alight when it's released in March '93, nothing will.

BEHIND THE SCENES

We were so stunned by the quality of the two upcoming titles that we thought it only fair to give credit where credit's due. So, here's a role call of the team involved:

• Publisher: Psygnosis

Development Team:

- Artists: Neil Thomas, Lee Carus-Westcott, Garvan Corbett, Jeff Bramfitt, Jim Bowers, Neal Sutton, Nicky Carus-Westcott, Mike Waterworth, Chris Moore, Gary Burley

- Programmers: Paul Frewin, Chris Wylie, Gavin Dodd, John Gibson, Dave Berisford, Kenny Everett, Mike Anthony, Andrew Toon, Simon Moore, Stuart Sargassom, Dominic Mallinson.

- Designers: Tony Parkes, Nick Burcombe, Nik Wild.



This 24-bit rendering makes up part of the opening sequence. Unfortunately, pictures of this quality are going to be hard to transfer to the Amiga, even with CDTV.



The ship approaches one of the implants in Korsby's body. Take careful aim and blow it away before the rival corporation's goons get to you.

ES SPECIAL

DRACULA

THE WOW FACTOR

If Psygnosis had their way, all games would simply be marked with a 'Wow!' factor. If that was the case, they'd have had quite a few 100% reviews by now. Even going back to the days of *Arena* and *Barbarian*, and more recently the *Beast* series, they've always managed to produce that jaw-dropping initial impact that shoots right off the gosh-o-meter. Guess what? They're at it again.

In a first for Psygnosis, they've won the rights to publish the official game of the forthcoming Dracula film. Starring Anthony Hopkins among others, Dracula opened in the U.S. in the autumn, and packed out cinemas across the country. Psygnosis are hoping for a repeat performance when it opens here in March.

The movie follows the plot of the original novel fairly closely. Jonathan Harker is the good guy, who finds himself in dealings with the Count, who wants to get himself a bit of property over in Olde England. All seems well, as Harker accepts an invitation to lodge at the Count's castle in Transylvania. All this changes when Dracula spys a photo of Harker's girlfriend, who bears a remarkable resemblance to an old flame. Soon she becomes an obsession, and Harker begins to get the feeling that the Count has an ulterior purpose when he asks him to stay for a little bit longer. Harker has to



As an eerie fog drifts into the forest all good adventurers should be tucked up safely in bed - NOT!



After the Psygnosis team had been digitised, the pictures were retouched using DPaint.

try to stop Dracula getting to England and putting his pointy fangs into his girlfriend. This is a perfect plot for a platform based beat'em up, after all haven't we all heard much more ludicrous plots used for these kind of games?

As with their other big CD title *Microcosm*, the 'blimey, that's good' comments, are induced by the stunning visuals. With the help of a Soft Image professional 24-bit 3D anima-



The representation of Dracula's castle has closely matched the descriptions in the original novel by Bram Stoker.

Weird creatures roam the corridors after dark. Any sensible man would follow Dracula's instructions to remain in his room. Unfortunately, hardened adventurers don't have the sense to follow simple instructions, so it's off for a bit of wandering.

Not content having just one enormous CD-ROM project on the go with *Microcosm*, Psygnosis are beavering away on another monster. Dracula, no stranger to computer games, is soon to make his first appearance on CD-ROM.

tion system, the Scouse lads have produced a game that looks like nothing you've ever seen before.

Most of the game takes the form of a horizontally scrolling beat 'em up, with arcade adventure elements creeping in at certain points. As far as the gameplay is concerned, it's fairly straightforward. Different levels take you through swamps, forests and castles, throwing up bats, ravens, rats, bewitched statues, gargoyles and Dracula himself, who has to be battled a number of times before the final conflict.

REAL 3D

What makes it different from anything else are the graphics. We've all seen parallax scrolling backgrounds, sometimes with dozens of planes as in the *Beast* games, but nothing can compare to the illusion of three-dimensional depth given by the backgrounds of *Dracula*. Usually, parallax effects are created by moving sets of flat graphics at different speeds, with those in the foreground moving fastest. This can be very

effective, but it still looks like a load of cardboard cut-outs moving across the screen.

Imagine you could dispense with all that pseudo-3D scrolling, and walk around in a fully ray-traced, texture mapped environment, that scrolled and panned under your control. Impossible? Don't you believe it, because that's just what you get with *Dracula!* Whether you're running through the icy wind in the spooky forest section, or hacking your way through the castle stage, you can't ignore the amazingly solid-looking backgrounds as they scroll past.

What makes it even more convincing is that this isn't just an automatic slideshow animation running behind the main action – it's all under your control. Not only do you walk along in front of these wonderful 3D scenes, but you also interact with them to a degree, walking up rendered animated staircases, opening trap doors and so on. If all this wasn't impressive enough, you get even more mouth-watering animations as you move from one scene to another, with dynamic panning and zoom shots taking you around from place to place.

BLUE MOVIES

Innovation number two concerns the rest of the animation. The design team wanted to get the most realistic sprites possible, to equal the standard of the backdrops. However, digitising figures directly from the film wasn't viable. Instead, Psygnosis had to turn their hands to a bit of dramatics themselves.

Dressed up in their own replica costumes, the team got out their video camera, and shot themselves running, jumping, dying, casting spells and all that kind of thing. These Oscar-worthy performances were then transferred to *Deluxe Paint* for retouching and animating, separated from the background using a variation on the 'blue screen' technique, the same method that's responsible for putting Doctor Who on the Planet Tharg, and superimposing newscasters on footage of efficient-looking office scenes.

Due for release in March '93, *Dracula* could be to the CDTV what *Defender of the Crown* was to the Amiga. It remains to be seen whether the gameplay can equal the graphics, but either way, it looks set to shift quite a few units this Easter.

THE COMPETITION

So what are these gorgeous games up against then? So far, most of the games to appear on CD have been identical to their floppy counterparts. The trend has been to put existing games lock, stock, and barrel onto CD, then fill up the rest of the disc with extra soundtracks, intro animations, or simply stop at porting the basic game. Some of the recent releases have started to show a little flair in design. Take *Sherlock Holmes: Consulting Detective*, from Icom Simulations, which was a title that not only used the visual storage capacity of the CDTV well, it was also a decent game.

Although the CD-ROM concept has been knocking around for a few years now, it's still quite a recent development in reality, but unless more of its potential is tapped soon, it could die an untimely death before it's got off the ground. After all, hardware is only as good as the software it runs. With *Microcosm* and *Dracula*, Psygnosis seem to be the only team using CD-ROM as anything other than a big floppy. So what about the rest of you, eh? Get your fingers out!



These wonderful quality pictures will, hopefully, be matched by an equally haunting soundtrack. Let's pray that Psygnosis have the sense to include some spot effects, like the hollow sound of footfalls on the stairs.



The sun sets on another day. It's only at night that our hero's, Jonathan Harker, worries really begin. The plan for this scene is to track the hero as he moves across the screen. The shadows will be continually rendered, live, so that they move with the setting sun and with the camera panning.



The scene is set outside Dracula's castle with a superb animated intro. Dynamic panning shots and thunderous sound effects get the pulse racing ready for the spooky action to come.



The horse's movements were taken from a real one using a video camera. Each frame was then digitised, and then the whole sequence was strung together using *DPaint*'s animation features.

Most of us are capable of recognising an outrageous hype campaign when we see one – but equally, most of us are perfectly capable of falling for its charms. Not having seen *Dances With Wolves*, say, can quickly become a social handicap, just as having played *Xenon II* on CDTV seems to be fast becoming a measure of computer gaming status these days.

So, CDTV. What is it exactly (magazine articles, word of mouth and even Commodore's own adverts are disturbingly vague on this point) and why exactly has it lodged itself obstinately at the very pinnacle of the ever-changing 'Next Big Thing' league? And – even more to the point – why should it be of any great interest to readers of AMIGA POWER?

As with all hype campaigns there are disciples and there are detractors, all of whom have managed to confuse the hell out of you, me, and even the machine's manufacturer Commodore. Look just below the surface though and you'll find things are surprisingly simple. Read on, and we'll explain all...

First off then, what exactly is a CDTV? Well, simply this: it's an Amiga rigged up to a Compact

Disc player, all tucked away in a pretty black box. To play, simply take a game CD, insert it into the CD drive, and grab the joystick.

And that's all it does, in the main. In actual fact CDTV is little more than a very good, very swish looking games computer. Ignore attempts to explain concepts like 'interactive multimedia'

Well, imagine someone sneaked into your house, trashed your Amiga disk drive, and replaced it with a CD drive (complete with a wide range of games CDs). You would hardly be banging off letters to Crimewatch would you? After all, instead of that fussy and noisy old drive, you've got yourself a nice slick Compact Disc player that can run games

(provided such a thing as games CDs existed, which we'll assume for the moment) not to mention double up playing music CDs when you're bored of killing things. Even better, you'd also be able to sample serious CD software, but we'll come to that later. Basically then, you wouldn't have lost anything, but you'd have gained a lot. So what's a lot? Well, for a start, large games would no longer

require two or three (or even eight!) disks – everything would fit onto the one CD. That wretched chore of disk swapping would soon become a thing of nostalgia freaks or poor relatives only. When you gave it a whirl you wouldn't find any noticeable change in graphic display – it's still an Amiga, and these are still

JUST WHAT IS SO SPECIAL ABOUT CDTV?

Colin Campbell tries to figure it out...

experience' – you'd have to have a pretentious streak a mile wide to fall in with the curious notion that, to be deemed a success, CDTV must be regarded as an incomprehensible phenomenon on a par with Stonehenge. At least half the stuff you'll ever hear or read about CDTV is pure hogwash.

So why all the fuss?

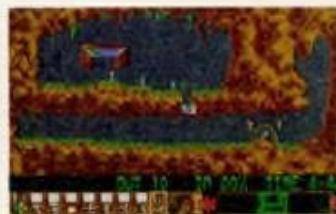
LIGHT ENTERTAINMENT AVAILABLE FOR CDTV

Bundled free with CDTV

LEMMINGS

Psygnosis

It's exactly the same as the Amiga version we love so dearly. Somewhat disappointingly, we had more fun with this than anything prepared with the CDTV in mind. It's a shame really, because an even better Lemmings would have shown us how CDTV differs from the Amiga. In the event, this rather proves our point; apart from the obvious apparatus, CDTV simply really isn't all that different to the Amiga.



Identical to the original Amiga version, but nonetheless wonderful, those kamikaze Lemmings need your help.

PLANETSIDE

Psygnosis



It's a wholly non-playable but astonishingly fast demo of forthcoming game Planetside. The aircraft whizzes along beautifully grim landscapes...



...while attempting to avoid lurking enemies. Your control system is ultra-state-of-the-art, but (for now) it's look and don't touch. The full game should be out early next year.

DR WELLMAN - A GUIDE TO GOOD HEALTH



You can point and click your way through your anatomy. It's all here, everything from how to brush your teeth right through to the sordid secrets of Gonorrhoea.



Each section contains written and spoken advice on all manner of problems. But the drawings are sub-standard, and the advice is, at best, bleeding obvious.

XENON 2

Image Works
£29.99

Vertically scrolling kill-em-all from those Bitmap fellows. Fast, loud and lots of fun. It also contains a slim element of strategy (in as much as you get to choose how huge your weapons should be).



Xenon 2 given (yet) another lease of life, courtesy of CDTV.



Amiga games after all – but you would find that games are bigger, much bigger. And getting around them takes less time. All of the hitches which made you want to kick and scream have been eliminated.

Anyone who claims this is not the way to the future is a fool, but, as with all joyous innovations, there are setbacks.

With CDTV – a device designed to do everything we've outlined above – it's not the technology which causes any problems (it's all tried and tested equipment packaged in a different way, after all), but the frightfully uninteresting question of market forces, best discussed by men in suits.

Nevertheless, to get a fix on CDTV we must, for a brief moment, get inside the mind of the person

whose job it is to persuade thee and me to fork out a whacking £600 on a home computer. (For that's how much it costs). Naturally, our man (for it is a he) is a mid-Atlantic businessman and therefore prone to corporatese. He's always saying things like 'It's a synergistic mixing of graphics, video, music, text and sound. It's a step forward for the

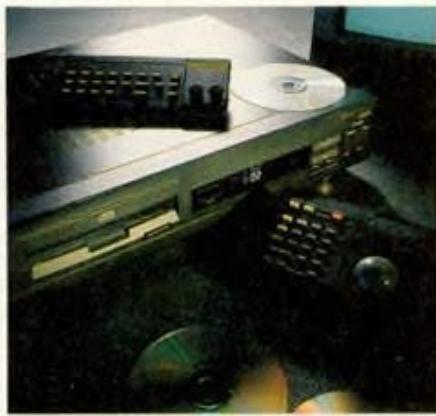
interactive multimedia entertainment generation. It's the gateway to the 21st Century,' which sounds pretty enough, but doesn't quite explain what the beast can do.

In truth, it can do much less than an Amiga would if it ran huge storage floppy disks. The magic isn't in the machine, it's in the CD.

One silver disk can hold 550Mb of information which, quite stunningly, is the equivalent of 700 Amiga floppy disks! Not bad eh? This, in turn, means that software developers can chuck all the music, graphics, text and sound that make up the most complex games onto the CD, mix it all up, and have space to spare. The only annoying aspect of the CD is that you can't write to it, which is hardly catastrophic if you're just playing games.

You can move about games swiftly, but, perversely, disc access is far from perfect. Bear in mind that it's a 1Mb machine, which might be required to continuously access different areas of a 550Mb CD. Even so, once the program is snugly nestled inside CDTV it zips along at a jaunty rate.

Our grey-suited man knows all this, but he's



The remarkably compact CDTV system, with associated remote controllers.

Most of the first CDTV games will be instantly familiar to you, because all the best classics are being re-mastered on CD format. Some (but precious few) are being updated. But at least with these CDs, you'll know what you're getting...

SNOOPY

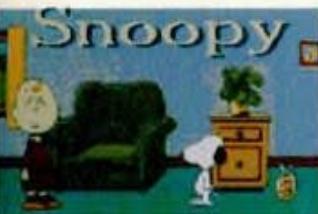
The Edge
£29.99

Simplistic and pretty cartoon adventure which should appeal to youngsters. Unfortunately, that Charlie Brown humour is sadly lacking.

FALCON

Mirror Image
£49.99

Stupendous flight simulation which, despite its advancing years, should not be consigned to the aircraft boneyard just yet. We're hoping to see some real improvements over the original Amiga version.



'Oh brother.' Everybody's favourite beagle will soon make the transition from Amiga to CDTV.



Mirrorsoft's Falcon is still regarded as one of the best all-round flight simulations on the Amiga.

WRATH OF THE DEMON

Entertainment International
£29.99

Great arcade adventure absolutely jam-packed with pretty pictures and tasty graphical tricks, CDTV should bring out the best in the game.



The original Amiga version of Wrath Of The Demon suffered from monumental disk access. The CDTV version should cure this problem, at least.

PSYCHO KILLER

On-Line
£29.99

Everybody loves a gory horror movie, so wouldn't it be fun to actually call the shots in an interactive blood and guts gore-fest? Psycho Killer consists of a bad guy, a good guy, a couple of weapons, the silliest dialogue since Halloween III, and a collection of commendably appalling digitised pictures.

You control by clicking on either direction buttons or on objects on screen. We begin, 'It was a cold November day...' From there it's all down hill...



1. What have we here? It looks suspiciously like a mad-dog psycho whose hobbies include leaping around in camp fashion, while carving people up into lumps of unpleasantness.



2. Our friend is wielding a machete, you're wielding a pair of Reeboks (£39.95 from Olympic Sports). You click on nutty boy's teeth and our hero blurts 'Eat my Reeboks, Freak Face'. Oh boy.



3. Plenty of gameplay here. Point at the arrow, click and go forwards. Keep doing this randomly until you get to an interesting bit. You're bound to get on the right track sooner or later (maybe).



4. The madman is behind you. Should you stand still and wait to be redesigned? Or should you get the hell away from Captain Mincemeat? I know. Let's go down the video shop...

paid stupid amounts of money to manipulate the facts, and he does so admirably. The point is, if you're toying with the idea of buying CDTV, don't take a blind bit of notice of all this multimedia nonsense. Stick to the facts.

So, you pop off down to Dixons or wherever for a sneaky fiddle, and what do you find? Nothing very much at all if you're looking for a computer – what you'll be confronted by looks suspiciously video recorder-esque. It's matt black, it's got one of those little light displays, and it sports a front loading system. As with a video it comes with a remote control with which you, ahem, remotely control everything.

Acronym nuts will be pleased to learn that CDTV apparently stands for Commodore Dynamic Total Vision. But most of us can happily bumble through life clutching two very simple abbreviations. They are CD and TV, and they are self-explanatory.

However, CDTV's grand title is the seed from which all manner of trouble has grown. When important people were first shown the CDTV they were utterly enraptured. That was two years ago, and still CDTV is not in the shops. In the meantime, everyone and their word processors have been busily attempting to quantify and explain. The result is that no-one knows what the hell is going on. Commodore confused the matter further by launching the dear thing every time more than half a dozen journalists assembled in the same place. One industry wit described it as 'the ship that faced a thousand launches'.

Hacks from everything from The Daily Telegraph to Toy Trader duly started scribbling about how 'hard it is to explain' before introducing our friend the businessman, who made a point of talking nonsense about mixed up multimedia generations, thus making the prediction nicely true.

Much of the confusion stems not from CDTV's undoubtedly capabilities as a games machine, but from its untested capabilities as an information database. Programs in the offing include The Complete Works of Shakespeare, the Illustrated Holy Bible, and the World Vista Atlas, and with that sort of thing sitting alongside

straight shoot-'em-ups it becomes easy to see where some of the confusion comes from. The problem isn't just that nobody knows what the machine can do, it's that nobody knows who it's meant to be aimed at.

WHY NOBODY KNOWS WHAT THE HELL IS GOING ON...

But anyway, back to the information database stuff. Instead of flicking through paper versions of these fine works, you wander through pictorial databases soaking up information at will. If, for instance, you were interested in bonkers Shakespearian characters, you could easily call up all information on King Lear, Hamlet, Lady Macbeth and Titus Andronicus. It's not a game, but it can be more fun than wading through a Penguin edition of the Bard's doings. Other interesting little fancies include All Dogs Go to Heaven and Electric Crayon, which acts as a digital colouring book for youngsters.

But let's get back to games. You'll recognise many of the titles on offer simply because software houses are smart enough to try their best games on the new format. This means we won't be offered a heap of old rubbish (though the existence of Psycho Killer tends to refute this) but the best in entertainment software.

Falcon, Future Wars, Xenon II, Pro Tennis, BAT, Lemmings,

The remote features a joypad not unlike those of the Megadrive or Nintendo. There's no keyboard (you can buy one as extra), so you can play exclusively through a point and click environment.

For the techies among you I should point out that we are being treated to one Megabyte of RAM as well as an extra 2Mb which simply helps the machine do its own thing. There's also 512K of ROM which hauls everything along (it contains Kickstart). Graphics and sound capabilities are exactly the same as with your Amiga 500 but there's also a tasty one Megabyte of video RAM. And that it, more or less. What's interesting is not what it can do, but how it'll be perceived... ■

Battlestorm. They're all here as well as some pretty odd offerings which, we're told, are being written with the intention of making the most of CDTV. Tiger Media's Airwave Adventure – Case of the Cautious Condor is an

Agatha Christie-style detective romp featuring more than 1,000 scenes. It's kind of like watching a movie, except you call the shots. The CD-based FM Towns version has already been scooping awards in Japan.

Movie style games are top of the agenda for forward thinking producers and it's no surprise that Lucasfilm have waded in with an extended version of the Battle of Britain cracker Their Finest Hour. Talented animation team Sullivan-Bluth of Dragon's Lair fame are also working on a science fiction extravaganza.

Programs cost anything from £30 for an Amiga conversion, to £50 for a really special game. When you consider that the hardware costs £600, it's hardly a purchase to be taken lightly.

For current Amiga owners (and I'm guessing there are quite a few of you reading this) there is the option of a £299 CD drive which, it is being claimed, will turn your machine into a CDTV (though, of course, it won't pack it away in the snug black box).

Optimistically, Commodore expects 80 per cent of Amiga owners to come up with cash. We're not so sure. There's no doubt that your pals will be impressed if you tool up with some CDTV kit, but your bank manager might not be so overwhelmed...

WHAT ELSE IS THERE?

CDTV's fate is always to be the first CD based home computer. In years to come, only sad misfits will claim that it was a work of technical genius. Commodore and CDTV have some extremely powerful enemies. Chief amongst these is Philips and its Compact Disc Interactive (CD-I) system. Philips (who invented the home video recorder and audio Compact Disc) will be unleashing their little monster in about a year's time. It will be at least £200 more expensive than CDTV, but, from what we've seen, will be much better. Little extras are being prepared for CD-I including Full Motion Video (whole interactive movies on one CD). We won't harp on about CD-I, but let's just suggest that if these systems were countries, CD-I would be Japan, and CDTV would just about get away with being Ireland. A world apart...

WHAT THEY SAID...

We can't help feeling that it will take more than words to prove that CDTV is really something special. But it's worth checking out what the people who have most to win or lose have to say...



'We're going to tell the people why they need CDTV. We have to give them a reason for wanting it. People need something new.'

Television is in the doldrums, camcorders are yesterday's thing. CDTV adds a new dimension to games playing. It's out of this world.'

Steve Franklin
Commodore UK Managing Director

'It is essential that it is seen as something wholly new, different and exciting. If not it will only ever appeal to the boundaries of the home computer market.'

Dawn Levack
Commodore UK Marketing Manager

'Commodore are calling CDTV an interactive machine, but you can't really interact with it at the moment. The CDs are only good to read, you can't write to them.'

Nigel Hayden
Technical Adviser to the Independent Commodore Products User Group

'We're looking at CD-I but none of the machines are ready yet. So, for us, CDTV is an excellent machine to cut our teeth on.'

Eric Matthews of The Bitmap Brothers

'If people buy now they will be locked with Amiga technology. When CD-I arrives it will have Full Motion Video with TV quality. It depends if they are prepared to wait.'

Julie Phillips
Philips Interactive Media



'It could quadruple our profits.'

Kelly Sumner
Commodore National Sales Manager

'CDTV will truly change the way people learn and are entertained. It's the real new media of the nineties.'

Nolan Bushnell
CDTV Project Manager

'Some of the early software titles won't really make the most of the hardware. We'll have to give it a year before we really see what it can do.'

David 'Lemmings' Jones
DMA Design

"This will change forever the way we communicate, learn and entertain. The system will be used for reference works, special interest areas, surrogate travel, music, entertainment - and when we abandon the high ground, it will play one hell of a game!"

Comments from Commodore at the launch of CDTV, Chicago, June 1990.



Commodore
INTERACTIVE GRAPHICS PLAYER

VOLUME (PHONES LEVEL)

DOWN UP

CD/TV POWER

ON/OFF

Making the Great Leap Forward

The big ideas will only begin to make sense when translated into software. The CDTV is a fine piece of technology, but it will stand or fall not by what it is, but by what it does. An in-depth investigation into the first 'programmes' being developed for it is conducted by **MARK SMIDDY**.

The CDTV is definitely on its way. It is not one of those nebulous new 'dream' computer products that vanishes after a few months' hype because the production problems turn out to make its creation impossible. It is based on simple, proven existing technology – an Amiga with version 1.3 of the operating system – so it will be simple for developers to get to grips with it and write programs for it. Its launch date is set – see the News pages – and over 1,000 machines will be in homes in Britain within the next month for intensive testing.

The only problem CDTV faces is acceptance by a public uncertain of exactly what it is: and you may have this difficulty yourself. After all, what's so special about what amounts to a 1Mb A500 with a CD drive and a

smart card bolted on? Posed with this very question, Graham Brown-Martin of Next Technology, who are putting together the 'Welcome' disk that will come with each CDTV, made this comment: "Some manufacturers put 68000s in washing machines – that doesn't make them Amigas with tumble driers!"

The CDTV is something of a pandora's box, an enigma, yet it's an answer to a myriad of questions as yet unasked. Gail Wellington of Commodore's Special Projects Division sees the machine having the potential to become, "a new standard home appliance... as ubiquitous as the VCR." The UK CD-ROM User Group have described the CDTV as "The best CD-ROM based system... one which can reach the market place at a price the consumer can afford."

“Baby? This is one small step for Commodore, one giant leap for computing”

Unnamed Amiga developer on hearing of the launch of CDTV

This feature could take an in-depth look at the CDTV hardware: but in the end, the only way you are going to find out exactly what "the world's first multimedia player" does will be to look at the software that runs on it. The CDTV's success or failure will depend on the software; on how much of it is available when the machine is launched, but above all on how much better than any mere computer product, simply how desirable, it turns out to be.

To find out how much software is either here or just about ready and what new directions it will take, Amiga Format spoke to a selection of the top software houses involved with the CDTV project. Some are familiar names, others are not, but they all have a common goal – to ensure the success of CDTV.

CDTV offers everyone an inroad into interactive multimedia: it is a fully integrated system which holds no fear for Mr and Mrs Average. Absence of keyboard, mouse and other mysterious components means that such people are presented with a black box they feel in control of, not a computer system that controls them. Nevertheless, some would say CDTV is expensive: it's expected to retail at around £699. Is this really so much?

An Amiga 500 costs £369.99 from Dixons and a Sony CDP-69 will set you back £169.95 at Rumbelows. A 1Mb RAM/Clock is worth £50.00 approximately, an infra-red remote control might cost £35.00 (although the unit is not available separately). Grand total: £624.94. This does not even allow for the fact that the motherboard has been redesigned and the complete unit given a smart new black 'designer' case.

To discover the opinion of the men at the sharp end - the ones who will eventually have to sell them - Format spoke to an assistant manager at Dixons, who specialise in consumer electronics. Although the person in question refused to speculate on the company's intention to stock CDTV, he would say this: "When it comes to CamCorders, £700 buys what is essentially a basic unit and they sell extremely well. At the price, the facilities offered by CDTV virtually ensure its success in the High-Street."

The Price of CDs

In the short term the CDTV user is likely to have to pay an extra 20-25% for a full-priced game or application on CD. For this extra cost they will be able to enjoy better sound and perhaps additional graphics and features. In the mid-term analysis, it seems likely the price of a CD game will start to rise above the price of the floppy disk versions as developers start getting to grips with the new system and attempt to claw back the extra investment required by passing it on to the consumer. Once again the extra features must be worth the money or the desire to buy will be offset by the prohibitive price.

In the long term, if the CDTV takes off the consumer will be the winner. There's some good news for most people and some bad news for a few - the infamous pirates. With current technology, CDs are almost impossible to duplicate. Better still, CDs are read-only, so there's no problem with viruses - even if a virus got into the original master, it could never spread onto other disks!

This has some long-term repercussions for the whole industry. Present estimates calculate for every game sold, at least four pirated copies are in circulation. Many even arrive in pirated form before appearing in the shops! CD prevents either

of these eventualities, so software companies will eventually be able to reduce the price of CD software, perhaps even below the current level of its floppy-based cousin.

Because CDs cost less than floppies to duplicate en masse, the software houses will be able to offer good software to law-abiding citizens at a sensible price. This has to be good news for everyone. A typical reaction is that of Krisalis Software's Tony Cavanagh, who is delighted with the idea: "We want to support CDTV in a big way!"

So What is

Interactive Multimedia?

This is a phrase which has sprung up over the last three years and, while being almost completely inaccurate, still manages to clearly convey an idea. 'Interactive' is accurate enough, giving the impression that the CDTV will produce information or proceed through a program in response to the user's instructions. The multimedia part is more confusing.

'Multi' derives from the Latin *multus*, meaning much or many. Media is the plural of medium, used in this sense to convey an information resource - this magazine is a medium, as is the disk on the cover. So are video and CD.

The confusion sets in with the fact that nearly all CDTV applications are likely to be driven off just a single medium, Compact Disc. The multimedia concept is more connected with the actual production of the software, in which video, text, animation and graphics will all be interwoven. This is where the multimedia revolution really has its impact.

Multimedia Corporation's Max Whitby commented "So much has been done over the last 40 years by so many bright people, it's very difficult to push back the envelope of TV any further. Interactive multimedia is just like the early days of Hollywood before the fades, dissolves and so on were developed - we have a language but we haven't invented the grammar yet." Meanwhile, a crucial part of that language is going to be Full-motion Video (FMV). If full-speed video sequences can be incorporated into, say, CDTV games, then the Cinemaware ideal of games as interactive movies is just waiting to be achieved. But there is a problem...

Trouble With FMV

In a nutshell, the problem is this: the maximum data transfer speed of a standard CD-ROM is only 150K per second and FMV requires a frame rate of around 25 to 30 frames per second (FPS) depending on the TV system. A typical low-res, interlaced PAL screen is made up like this:

320 x 512 = 16K per bitplane
32 colours = 5 bitplanes

Welcome!

Cambridge-based Next Technology are producing the Welcome disk that will introduce the new machine. It doesn't aim to break any new ground, but rather offers a taste of things to come based around a hypermedia sub-system. Apart from a 'tour' around the CDTV system explaining how it works, the Welcome disk will be split into six sub-sections, each containing a mixture of graphics, sound and music:

- 1: A visit to the Amazonian basin and a trip around a rain forest.
- 2: A short tour of the Victoria and Albert museum.
- 3: The life and times of JS Bach.
- 4: A potted history of space exploration and the shuttle.
- 5: Sport - the components of the decathlon.
- 6: A walk around the pyramids.

Exploring the Icecaps



Inspired by the efforts of great explorers, this programme puts a group of people in charge of an expedition to travel across the frozen wasteland of the Arctic in a race against time to reach the North Pole. Using digitised footage from Armand Hammer Productions' award-winning documentary and stills taken by the famous explorer Ranulph Fiennes himself, the team must complete the journey in a very realistic environment.

A further release planned by Virgin Interactive is something of a new venture. The Musicolour system is a completely new approach to the teaching of music, based on the idea that opera singers and other accomplished musicians visualise notes as colours, not sounds. Currently the package contains enough material to teach the basics of music in 12 hours and can continue to grade 4 or 5 in reading music and playing an instrument...



"TV is a sort of broadcasting - it covers a broad range of ideas without much depth. Interactive multimedia is narrow-casting - it allows the user to pick the area of his or her greatest interest with ease. Previously, software has been very lacking in content - the next generation of software will be content-rich." Graham Brown-Martin, Next Technology.

The Bard's Tale

"Alas, poor Yorick", or "exit pursued by a bear" - all the words of England's greatest writer, from the sublime to the ridiculous, appear on a disc of the complete works of Wm Shakespeare. The name behind the project, Animated Pixels, may not be familiar but the fact that they were the architects of that great piece of twentieth-century culture the home-computer R-Type must say something. Shakespeare's Works is just one of five releases, another being the King James bible, which will be based around a hypertext engine to make instant cross-referencing and looking up of those famous quotations a pleasure. Also nearing completion is a complete map of the British Isles and an illustrated history of space flight with pictures provided by NASA. Says Dr Sed Hosseini of Animated Pixels "I believe in CDTV - I think it's going to be very big".

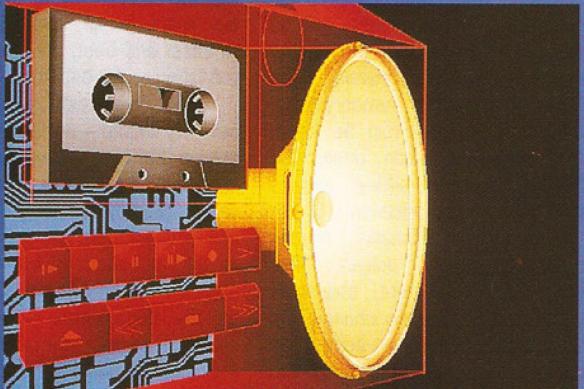


How it Works

Health...

Digitac's health system, Dr Feelgood, should be a triumph both for them and Commodore, who are expected to badge it "Family Health Adviser" for the CDTV market. The programme, developed over 2.5 man-years, gives a complete guide to getting fit, staying healthy and what to do when things go wrong. What makes it special is the addition of graphics, animation, music and all the other things that standard health encyclopedias lack; all due to the CDTV approach.

The main section is General Healthy Living, but other topics are Self-examination, Adult health, Sex, Later Life, Dental health, First Aid, Poisoning - "In India alone, 10,000 people die each year from snake bites!" commented Dr Feelgood's inventor, Jeremy Rihl - Travelling Abroad and Obstetrics. Finally there's a panic button which gives direct access to the Emergencies section of the programme for action in a crisis.



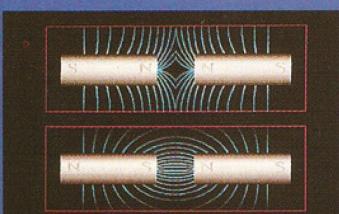
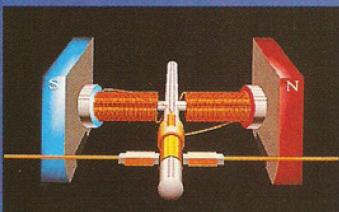
Tiger Media is another newcomer to the Amiga scene - but they have been working with CD technology for several years. They were in fact, one of the first companies to spring up in the wake CD left as it bulldozed its way through conventional thinking.

How Things Work is an illustrated encyclopedia set in a house: Tiger Media's Dave Lundberg takes up the story. "You could go to the CD player and get a description of the component parts. Then you could select a part: the laser, LCD display, motor etc. and get a narrated description of each. If you picked the motor, for instance, you could get a description of not just the components, but also information on magnetism. There is no text or complex instructions to crowd the display - the whole thing is visual imagery with narration. We're very excited about it."

...and Safety!

Flight sims there have been aplenty, but never a simulation based on the real sharp end: Air Traffic Control. Logic Plus, a new company headed by William Owen, are set to change that with Airways, a sim based in the 'greenhouse' of a major international airport. "Flight controllers have one of the most stressful jobs in aviation" says William. "Airways will be very close to the real thing. Because the CD platform allows us to store more data than ever before we'll be able to include realistic incidents like near misses."

Even more realism could come in a later enhancement: "We have a multi-user version in the pipeline which will be produced in association with a highly-regarded simulator supplier. This will allow an Airways player to talk down a player piloting a simulator on another machine." Now that's interactive!



$16K \times 5$ bitplanes = 80K

So to achieve 25 FPS, the CD would have to transfer data continually at over 2Mb per second, which is not yet a realistic possibility. The answer, therefore, is to compress the data very tightly so it can be read from the disc, uncompressed and displayed on screen. In practice, any screen would have to be compressed to under 6K for PAL and under 5K for NTSC. The frame rate for these systems is 25 FPS and 30 FPS respectively, so:

$$6K \times 25 \text{ frames} = 150K \text{ per second (PAL 50Hz)}$$
$$5K \times 30 \text{ frames} = 150K \text{ per second (NTSC 60Hz)}$$

For HAM and EHB screens the problem is even worse since these require an extra bitplane. (For more information on Amiga screen formats see Amiga Format 9, April 1990, Page 105). Now, such compression can (and possibly eventually will) be done using an extra piece of circuitry, but in the meantime software is the solution. Contrary to rumours elsewhere, this not only can be done, but already has been done: the technique is quite simple and is known as 'delta compression'.

In a standard animation, frames are flipped through quickly. While each frame is different, only very small parts of it actually change: the main character walking across an unmoving background, for instance. The clue lies within the phrase "very small changes". By removing everything but the changes, the resulting "partial image" (sometimes called a 'delta') can be compressed very efficiently using byte repetition. Everything else stays the same. This might sound dreadfully complex but in practice requires only a couple of very simple logical operations.

Because each change can only be small, the motion is actually much smoother than ever before. Fast, solid-fill 3D games already use a version of this system, calculating just the changing edges on objects.

Independent CD expert Jim Mackonochie told Format "There is little doubt the software to produce FMV on a 16 or 32-colour screen exists already. We'll have to wait a little while longer before the 256-plus-colour solution arrives. In the meantime, there's no reason why we shouldn't be enjoying cartoon-style graphics inside the next six months."

Practical Problems

One of the first difficulties confronting those who wish to develop for the CDTV is likely to be finding a system suitable for work of this kind. There are, however, two in existence already that will do nicely. CRL have DUNE - Developers Universal Non-Programming Environment. Tiger Media have CATS - Compact disc Authoring Tool System. The two

systems come from different sides of the Atlantic and were developed independently of one another - so what's the connection? Hypermedia! Another one of those buzz words crawls in again, like a spider from under a keyboard.

The great thing about hypermedia is it allows for very complex systems to be programmed easily and made extremely portable into the bargain. The idea of hyperstacks involves objects. Each object can reference a whole set of new objects, which in turn refer to new objects and so on. In this sense objects can be anything from parts of a screen to sound samples, text, animations and so on.

It sounds revolutionary, but in practise the idea has been around for years in well-written technical manuals and even properly cross-referenced indices. Roget's Thesaurus is a classic example of hypertext at its simplest and best; and that was first published as far back as 1852!

But hypertext systems are severely limited - not by the software engine, but by the imagination of the application's designer. Hypermedia's simplicity may be its downfall - if DUNE developers are not monitored closely, just about anyone with aspirations of making a fast buck will jump on the bandwagon. This can only serve to degrade the quality of software and prejudice public opinion.

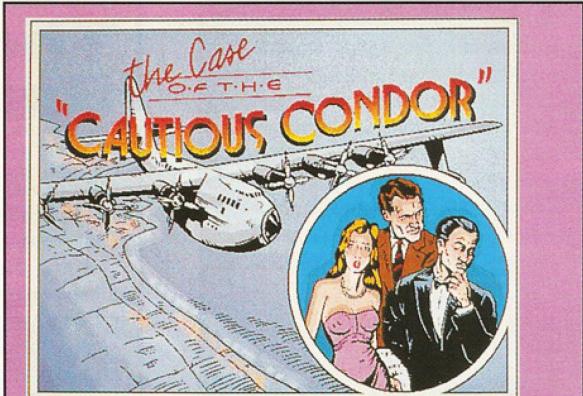
Television producer Ted Barnes echoes this concern. "For the price of a CDTV disk, you could go out and buy three video cassettes or three audio CDs. Initially, therefore, people will not be able to perceive the advantage of interactivity. We have to be careful we use this unique opportunity to the best advantage."

Of the current rash of software due to appear on CDTV, the majority is based on some kind of hypermedia setup. Currently planned releases look quite excellent, possibly because Commodore are keeping a watchful eye on their carefully-chosen band of developers. It's too early to tell yet, but this is an excellent chance for the industry to look in on itself and start to set standards. By next year, it will probably be too late.

And a Practical Answer!

Most of the usual hardware developers were keeping very tight-lipped about what they were planning for the CDTV, but Icom Simulations (better known for their high-quality adventure games) have something every serious CDTV developer should know about. Serious because it costs £6,000!

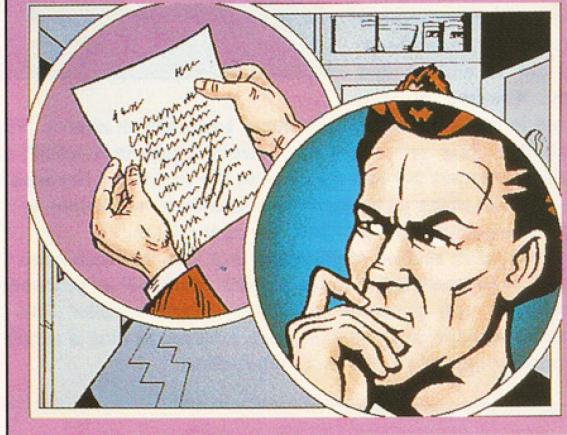
For that you get a card which simulates the way a CD unit works but actually uses an ordinary magnetic disk drive. It plugs into an Amiga 3000 (or 2500) then a flying ribbon cable plugs onto the CDTV where the CD drive normally goes.



High Adventure

The first production from Tiger Media (see previous page) is an interactive drama, *Airwave Adventure - Case of the Cautious Condor*. This is a detective mystery set in the 1930s and based around an airplane: it's an unusual and innovative product of over two years' work. On the FM-Towns, it has already been awarded Adventure Game of the Year by LOGIN magazine in Japan.

In classic Agatha Christie style, the game is packed with clues as well as red herrings: Tiger Media claim there are more than 1500 paths the player can follow and only one leads to the killer. Although the complete game can be played from start to finish in around 20 minutes it contains 2.5 hours of audio and over 1000 scenes.



Accolade in Gear

Accolade are best remembered for their driving games and *Test Drive 3* is now well under way for the Amiga. Comments Sheldon Safir, Accolade's Product Development Manager, "It uses filled-polygon graphics and a wealth of features not seen before, like cars that are still in the development stages". When it comes to CDTV, however, Sheldon is playing his cards very close to his chest: "What I can tell you is that we're developing new titles for the CDTV, not just converting old software. We're attempting to take the product away from the computer and out into the living room. Supporting more than a single player, it'll be almost like being there". The only question now is: being where?

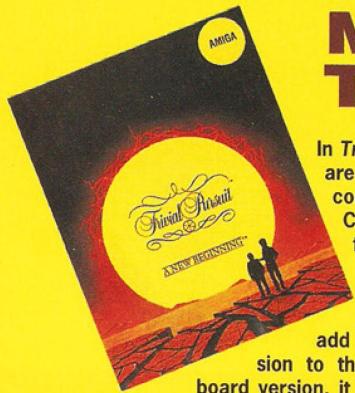
CRL Get Grotesque



SPECIAL

CRL's DUNE (Developer's Universal Non-programming Environment) is a simple development system that's been welcomed with open arms by many developers and is ideally suited to CD multimedia applications. The company have two products under development for the CDTV. Dennis Wheatley's *Herewith the Clues*, already out on the Amiga, should show quite a step forward; but *Cult of the Severed Head* promises to be the most stunning (and grizzly) adventure game yet seen on a micro. Most of the outdoor stills are being shot on location in Wales and North Eastern England and the animated sequences will be derived from recent movie techniques - like the soon-to-be-famous melting head!

More Trivia



In *Trivial Pursuit*, Domark are holding what could be the hottest CDTV product in the foreseeable future - and good luck to them too, the lucky people. CDTV could add a whole new dimension to the game.

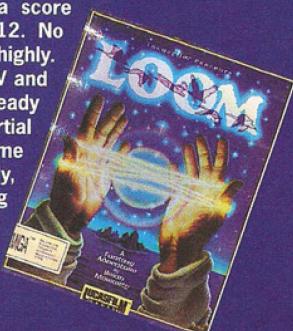
On the old board version, it isn't very practical to ask someone to hum "We don't need no education" and ask them to name that tune, or show someone a picture and ask, "What made this person famous?" With CDTV all this and a lot more is possible - trivia quizzes may never be the same again.

Lucasfilm at the Movies



Lucasfilm Games, with their movie background, intend to go for full-motion video in a big way: currently titles under development for CDTV include *Loom* (reviewed this issue), *Their Finest Hour* and *Indiana Jones' Last Crusade*.

For more details, over to Lucasfilm's own Doug Glen. "*Their Finest Hour* has consistently been the most popular game in a survey of game players in the US, getting a score over 11 out of a possible 12. No game has ever rated so highly. We're experimenting with FMV and by the time the product is ready we should have at least partial screen animation of some original war footage. Similarly, *Indiana Jones* is being converted from the 256-colour VGA [PC] version and we expect to have some footage and soundtrack from the film."



Check it Out

Electronic Arts are almost bound to become involved in a project like CDTV, although current news of what they expect to release is limited to the infamous *BattleChess*. The life-like figures that replaced the pieces and the animation sequences that played whenever pieces clashed in the original will no doubt be enhanced to give an almost movie-like feel to this chess extravaganza. More Battle than Chess? We'll see.

Bluth's New Beasts

Sullivan-Bluth are probably best known in the games market for their ground-breaking *Dragon's Lair*, first introduced as early as 1983. Pat Ketchum told Format "We recently heard of an installation that is taking more quarters [the US equivalent of your 20p] per hour than any other game in the arcade." Although the company have been "very happy" with Readysoft's conversions to the Amiga, they have decided to produce their latest developments in-house. Both are in very early stages of development, but here's a taste!

Sea Beast will be the first to appear, based on Bluth's fourth blockbusting Laserdisc game. The next is so new it doesn't even have a name! Comments Pat Ketchum, "We haven't decided on a name yet because this game is so new - it doesn't even have a working title. In fact we only just signed the agreement this afternoon. The game is going to be a co-production between Sullivan-Bluth and Syd Mead [the visual futurist behind films like *Blade Runner*, *2010*, *Dune* and *Short Circuit*].

"This game will be very sophisticated and push the system to its limits and with Syd Mead's influence it'll look more like a *Blade Runner* or a *Dune* than the previous titles. Versions will be released for the CDTV and the Amiga but the CDTV version will be greatly enhanced in every area... Let's call it *Mead's Game*..."





SPECIAL

Now, the CDTV thinks it's connected to a CD drive when in reality all the information is coming from the huge (recommended size 650Mb) hard disk chain connected to the Amiga. The breakthrough comes from the fact the board buffers the data down to the 150K/Sec expected by the CDTV. This allows developers to test the software links before committing them to compact disc. Even using a one-off CD service runs into hundreds of pounds per disk.

Last Problem,

The Competition: CD-I

Philips Electronics, the highly respected electronics giant, defined a new standard in video in 1972 when they invented the Videodisc. It was based around a 12" analogue encoded disc read by laser. By the time Laservision appeared, JVC's VHS and Sony's Betamax systems were locking horns so tightly Laservision almost went unnoticed in the UK.

The breakthrough came when Philips collaborated with Sony to produce the digital audio compact disc (CD) and standardised the setup in 1979. This broke new ground in high-fidelity sound because the digital encoding abolished the background noise (clicks, pops and so on) associated with other media.

In an attempt to consolidate their strong market position, on 17th May 1989 Philips announced an almost unprecedented action by teaming up with Matsushita (who trade as Technics and Panasonic in the UK) and Sony to develop CD-I. This effectively means the three largest electronics companies in the world are working on the new standard. On 18th June 1990 Philips announced their agreement with Motorola (who source the 68000) to supply the chip set for full-motion, full-screen video. Using Motorola's High Density CMOS (complimentary metal-oxide semiconductor) technology, this will be offered to all third-party developers.

CD-I has all the advantages of digital audio CD, in addition to being interactive, offering full-motion video at PAL resolution and having 32,000 displayable colours. More accurately the system offers three display coding methods, described briefly below:

- RGB: 15 bits-per-pixel with a colour look-up table (CLUT) giving 256 colours on screen at once. By comparison the Amiga uses a maximum of 5 bits per pixel.

- Delta YUV: uses discreet colour changes between adjoining pixels

Bird Watching



CMC ReSearch is a small company based in Oregon who specialise in interactive multimedia for the Apple Macintosh and the IBM PC. CMC have their own database search engine, Disc Passage, which should make porting very straightforward. In development for CDTV is *Multimedia Birds of America*, based on a famous illustrated book prepared in about 1840 by ornithologist John James Audubon. The package displays all 500 full-colour lithographs from the original, plus additional graphics, new information and bird songs.



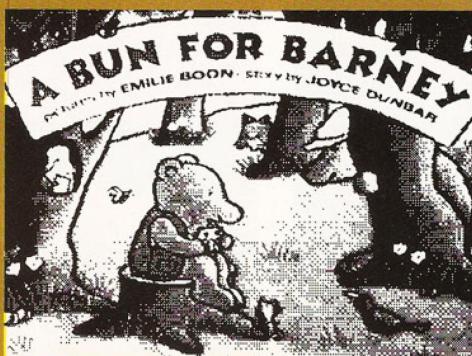
Plus Fun School 3



Database Software plan to release their latest fun education package, *Fun School 3*, in CDTV format. As well as CDs being better protected from young fingers, the new format will offer three languages (spoken as well as text) and an extra game based on the ever-popular dinosaurs...



Barney Gets His Bun



Ticket to Japan

For anyone with aspirations to visit Japan, work for a Japanese company, or just with an interest in Japanese life, this is just the ticket. The project started when car giants Toyota decided to build their new multi-million pound car factory in the heart of Derbyshire.



Format spoke to Top Class Technology's Jeff Glossop as he was preparing to jet off to the Far East with a video crew to get footage of Japanese life and society. He comments, "Japan World can teach Japanese life and culture in a way no book ever could. Although Japanese is a very complex language, they also use a set of about 70 phonetic idiograms [the Hiragana] to describe everyday objects and things. The user can assemble a sentence from these and get the computer to speak it back to them. *Japan World* will include instructions on when and how low to bow given different situations... The wrong bow could be taken as a great insult."

Born from the British Broadcasting Corporation is the Multimedia corporation. "Aunty Beeb" has assembled a group of some of the most talented producers and directors in the scientific field. Many have worked on documentaries for BBC2's award winning "Horizon" and BBC1's science magazine "Tomorrow's World."

Their first production - due for release at the end of October - is *A Bun For Barney*, an animated children's book scripted by Joyce Dunbar intended to teach reading skills to 3-6 year olds. Bringing the images to life, (they call it pop-up video) Multimedia commissioned Bill Melendez productions, familiar for their *Charlie Brown* TV cartoon specials. A voice-over is provided by one-time Dr Who Tom Baker.

WHAT'S new USA

The big news this month comes from the summer Consumer Electronics Show (CES), held in Chicago, Illinois from June 1 to 4.

If you're looking for the latest and greatest developments in video, hi-fi audio, home entertainment and computer and videogames, CES is the place to be.

This twice-yearly exposition is where dealers and the press go to find out what high-tech items are going to be hot during the next Christmas season.

I went to the show expecting the popular technologies to be things like High Definition Television (HDTV) and expensive yuppie toys such as handheld electronic Rolodex directories. I was in for a shock – it turned out that the most-talked-about technology on display was Commodore's own CDTV unit.

Commodore had a huge booth strategically placed right in the middle of the East Hall, with the consumer electronics exhibits, rather than in the North Hall with the computer and videogame exhibits.

While the crowd at CES was a bit thin this year, probably due to the recessionary economy here in the U.S., Commodore's booth was consistently crowded. The booth was almost entirely devoted to CDTV, with both currently-available and future applications on display. There were a few Amiga 500 units on display, but CDTV was the obvious star of the show. The player and two of its titles (Music Maker and World Vista) were named among the most innovative consumer electronics products of 1991 by the Electronics Industries Association at CES.

CDTV wasn't the only compact-disc technology on display. North American Philips/Magnavox were once again showing their long-delayed CD-I (Compact Disc-Interactive) player, this time promising that it would ship in October.

Similar in concept to CDTV, the CD-I player has been shown, but not



shipped, since the late 1980s. The player has a few advantages over CDTV: it sports a 16-million-color palette, a slightly faster processor, and, most important, has the marketing muscle of Magnavox, Sony, and Matsushita (Panasonic) behind it.

However, it has its share of disadvantages as well: it's much more costly to develop software for than CDTV, it's more expensive (\$1400 compared to CDTV's \$999), and its fragile "thumbstick" controller is less familiar to American kids than the Nintendo-like joypad used by CDTV (and more likely to be accidentally broken).

While most of the CD-I software on show looked more polished than the CDTV applications, you have to remember that developers have had years to develop them, thanks to CD-I's many delays.

Compression

The consensus amongst showgoers was that Philips was only shipping CD-I now because of CDTV's presence in the market. One of CD-I's most-touted features, MPEG (Motion Picture Expert Group) compression, which will allow full-screen, full-motion video, isn't ready yet, and won't ship until 1992.

Philips will start shipping the machines in October and make MPEG capability available on a plug-in cartridge sometime in 1992. Company representatives had no information about price and availability of the cartridge.

While Philips were making promises about CD-I, Commodore were showing the already-shipping CDTV, along with almost 30 applications that are currently available, and another 20 that will be available soon. They also showed a number of new add-ons that will help give CDTV a technological boost to help it stay competitive with CD-I.

On the first day of the show, Commodore premiered CDTV playing

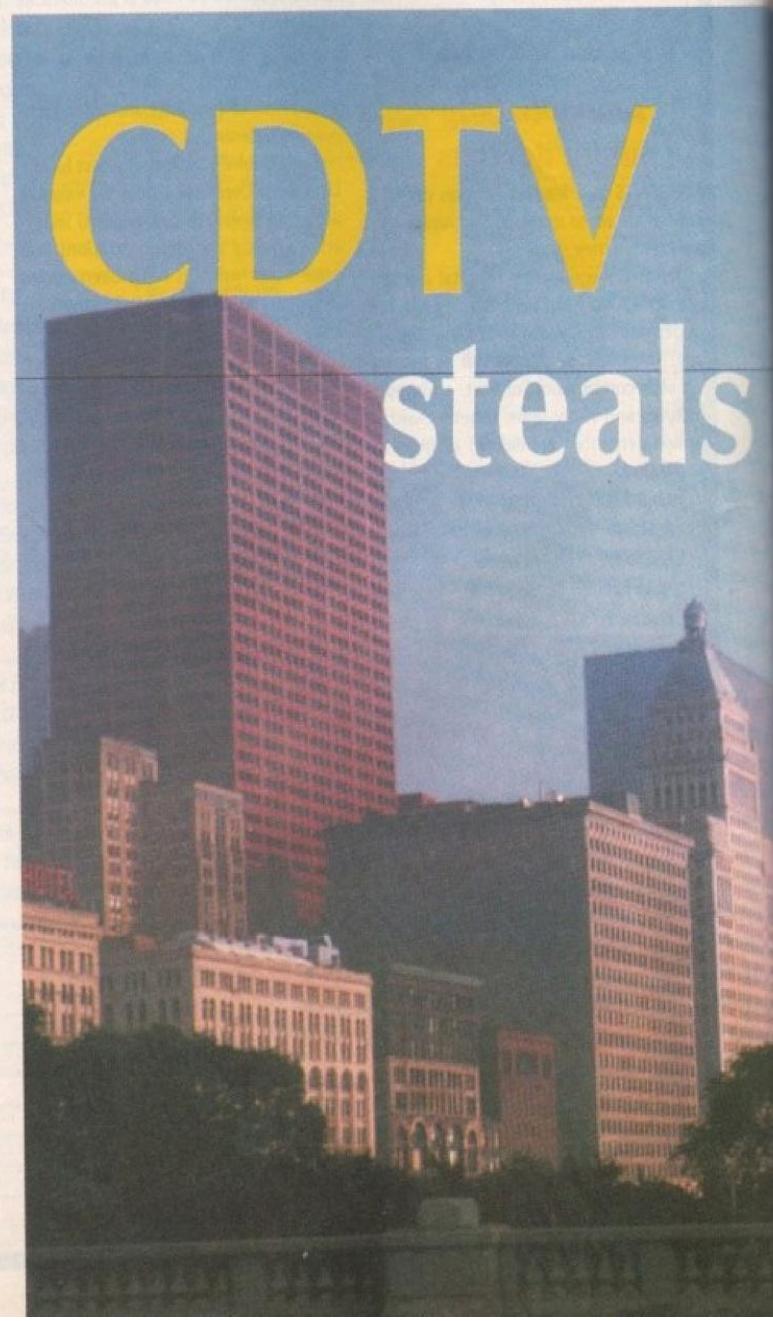
home and display the pictures on a TV using CDTV, CD-I, or a dedicated Photo CD player. Up to 100 images can be stored on each disc. Conventional prints can be made using the data stored on CD. Kodak expects Photo CD processing to be available in the U.S. in June, 1992.

Even more exciting than Photo CD, though, was the technology that Commodore was using to adapt CDTV as a Photo CD player. CDTV's standard 4096-color graphics aren't good enough for Photo CD, which requires a 24-bit "full-color" palette. While Commodore engineers would only admit that "some kind of 24-bit solution was in the works," a little poking around behind the machine displaying the Photo CD pictures revealed a unit in the video slot marked "DCTV by Digital Creations."

Currently available only for NTSC machines, DCTV is a \$495 external box that adds full-color video output and a digitizer to any Amiga. The unit installed in the CDTV was a smaller,

Kodak's new Photo CD discs. With Photo CD, you take pictures using conventional 35mm film. When you take the film in for processing, each picture is scanned into a computer and stored on a compact disc, in both video-resolution, for display on a television set, and a higher-resolution format, suitable for use in image-processing software.

You'll be able to take Photo CDs



internal board sans digitizer. The output of the DCTV-equipped CDTV was absolutely stunning – television quality video with none of the fringing or blockiness associated with HAM pictures.

Most exciting, though, was the price – a Commodore representative estimated that the DCTV add-in would cost only about \$50. Other showgoers were told that Commodore is negotiating with Digital to make the DCTV output a standard feature in CDTV before the Christmas season. I only hope they change the name – "CDTV-DCTV" is quite a mouthful.

Motion video

Other new technologies shown to the public for the first time were CDXL motion video and the CDTV-PIP picture-in-picture add-on. CDXL is a patented software technology developed by Carl Sassenrath that allows developers to add 12 frame per second,

1/3 screen motion video to their titles.

CDXL is a bridge technology that will allow motion video to be added to CDTV titles while Commodore waits for MPEG compression. Like Philips, Commodore plans an MPEG full-motion-video add-on once the standard is finalized. When combined with the DCTV full-color add-on, CDXL animation looks as good as videotape output.

CDTV-PIP is a special genlock that allows a 1/3 screen window containing live NTSC video to be displayed simultaneously with a CDTV application.

With this plug-in video card, you can watch video output from a VCR or laserdisc player while using your favorite CDTV application. Perfect for letting Dad keep track of his football game while the kids play games on the CDTV. Reps at CES weren't sure when a PAL version would be available.

Third-party add-ons for CDTV were on display as well. The AirMouse remote control, which resembles a Star Trek: The Next Generation hand

phaser, is a hand-held infrared mouse that works somewhat like a light pen. Instead of rolling it across a flat surface, you move it up, down, left, and right while pointing it at the screen.

This \$99 add-on will work at up to 5 metres from the CDTV screen. Another neat gadget was a version of Very Vivid's Mandala system tailored for CDTV. Mandala, which has been around since the Amiga's birth, uses a video camera to allow you interact directly with objects onscreen.

The camera displays a digitized outline of your body, with which you can "touch" onscreen objects. Sample applications on display included a drum set, a paint program that could be manipulated by waving your arms, and an ice-hockey game that lets your image act as goalie.

Software continues to pour out for CDTV. The most impressive title on display won't be available for about another year: Psygnosis' incredible new 3-D flight simulator that features a real-time-generated fractal landscape. If you want a preview, a demo is included on the same disc as the CDTV version of Lemmings, which should be shipping about the time you read this.

Another dazzling title, which should be available in July, is Sherlock Holmes: Consulting Detective, from ICOM simulations. The game's conversational sequences use 15 frame-per-second animated video, featuring 25 actors in 50 speaking parts, authentic costumes, and 25 Victorian-era sets, making this game a truly cinematic experience.

Jack Nicklaus Golf-CDTV features over 8,000 digitized images covering every eight yards of the Muirfield Village Golf Club in Dublin, Ohio, as well as a digitized version of Jack himself to play against.

Nintendo

Other new titles shown at CES include the Guinness CDTV Disc of Records, Dinosaurs (a CD comic book in the tradition of Teenage Mutant Ninja Turtles), Wayne Gretzky Hockey CDTV, Trivial Pursuit (with animated graphics, sound effect, and stereo music accompanying 2,000 trivial questions), SimCity, Xenon 2, Falcon, and Sea Beast and Maelstrom from Sullivan-Bluth.

The show wasn't all CDTV, of course. A number of companies were showing their latest wares for the Amiga, IBM, Nintendo, and Sega platforms.

Nintendo's Super NES booth dominated the software floor, although the machine didn't seem to generate the level of excitement many expected. There were some killer games shown for the IBM PC, including Chuck Yeager's Air Combat from EA, and Wing Commander II and Strike

Commander from Origin. The new Origin games were probably the most technically-impressive programs shown at CES, but the bad news is that there are no plans to port them to the Amiga (considering that the recommended minimum hardware platform for Strike Commander is a 20MHz 386 PC with 2MB of memory, it's not hard to see why).

Dungeons

The good news is that Origin plans to release a version of Wing Commander for the Amiga before year's end, and they promise they'll do a much better job porting it than they did on the poorly-converted Ultima series.

Electronic Arts' upcoming releases include Black Crypt, a Dungeon Master-style game with 12 dungeons painstakingly rendered in 64-color halfbright mode. Battle Island from Ubi Soft (distributed by EA in the U.S.) looks to be a real treat for wargamers, as does Mindcraft's The Rules of Engagement.

California Dreams, another EA label, will be releasing Solidarity, a simulation that puts you in the shoes of a Polish labor leader and gives you a chance to recreate the steps that led to the country's freedom.

Arena Entertainment, MirrorSoft's U.S. label, showed off Reach for the Skies, a fantastic Battle of Britain flight simulator. Unlike Lucasfilms' similar offering, Reach for the Skies uses polygon graphics and presents impressive animation speed even on an unaccelerated Amiga.

Finally, Psygnosis gave me a private preview of their upcoming Amiga titles for release in the U.S. and U.K.

Barbarian II is similar to Barbarian, one of the company's first Amiga releases, but is much more playable. Aquaventura is a fast-action arcade game featuring first-person action, horizontally scrolling shoot-em up sequences, and 3-D tunnel sections.

The real winner for arcade fans, though, promises to be Leander, a 22-level platform arcade game with the best graphics yet in a Psygnosis game. Although I didn't see them, look forward to Shadow of the Beast III around Christmas, and Lemmings II early next year.

That's it for CES highlights. As this article went to press, news reached me that Commodore had actually sent Kickstart 2.0 off to the rom burners, so the new operating system should be available as soon as the company's marketing department gets the packaging ready.

According to a well-placed source, the final release of 2.0 may contain a few surprises, such as scalable outline fonts. Hopefully I'll have more details in next month's column.

the show

Despite a smaller crowd than usual at the Consumer Electronics Show in Chicago, you practically had to stand on shoulders to get a glimpse of Commodore's CDTV. Denny Atkin reports

CDTV inside and out

If you've been reading about CDTV recently, you will know that Commodore are going to great pains to convince people that it isn't a computer. You may also know that inside the black box is something not too dissimilar from the Amiga 500 with a compact disc drive bolted on.

So, with screwdriver in hand, I dismantled my CDTV to find out exactly what's inside it, and I discovered a few interesting things.

The first odd thing about the CDTV is that the circuit board is right at the top of the case, with the drives, expansion slots and power supply taking up most of the space below it.

Despite the small size of the unit there is still a considerable amount of free space inside the box – certainly enough to mount an internal hard disk, for example.

Custom interface

The general build quality of the machine is good, there is a nice, large power supply which can quite easily power lots of internal and external peripherals, and a little fan to keep everything cool.

The Panasonic CD-ROM mechanism lives underneath the circuit board and is not, as many people assumed, a SCSI CD-ROM, but has a custom direct interface which was, presumably, much cheaper for Commodore to incorporate. It has a capacity of about 540Mb (that's the same as 700 floppy disks!)

In standard mode it can transfer at 153Kb/sec, which is about average for a CD-ROM drive. The much talked-about burst mode which allows 2Mb/sec data transfer is really not relevant, as a burst transfer only lasts a small fraction of a second, and so the overall data transfer rate is still no higher. Under mode 2 transfers of 170Kb/sec are possible, but to use this the AmigaDOS file system must be abandoned and the data read directly from disc.

Also under the board is what looks like a miniature 3.5in disk drive. On closer examination it reveals itself to be a drive for smart ram-cards, like those found on some portable computers, and on many Midi instruments.

Socket to 'em!

The cards will come in 8Kb, 64Kb, 256Kb and 512Kb sizes, and are to be used for saving data from the CDTV. It appears as a standard Amiga device and can be written to just as if it was a floppy disk. It doesn't in itself give the CDTV any more usable Ram.

The circuit board is not, as was widely rumoured, identical to the Amiga 500. It is a totally new design, and is a lot more complex.

The Amiga 500 has only eight

Jolyon Ralph takes a screwdriver to his CDTV



Power up – switch on
– bootup – The CDTV front screen

large ICs, the CDTV board has 14 large chips. Several of the small chips are surface mounted.

Surface mount technology is relatively new. It allows even greater densities of components to be placed on a board, but makes repair at the best difficult, if not impossible.

All the major chips are socketed, which makes replacement easy, and there are some old friends, and some new arrivals among the chips on the board.

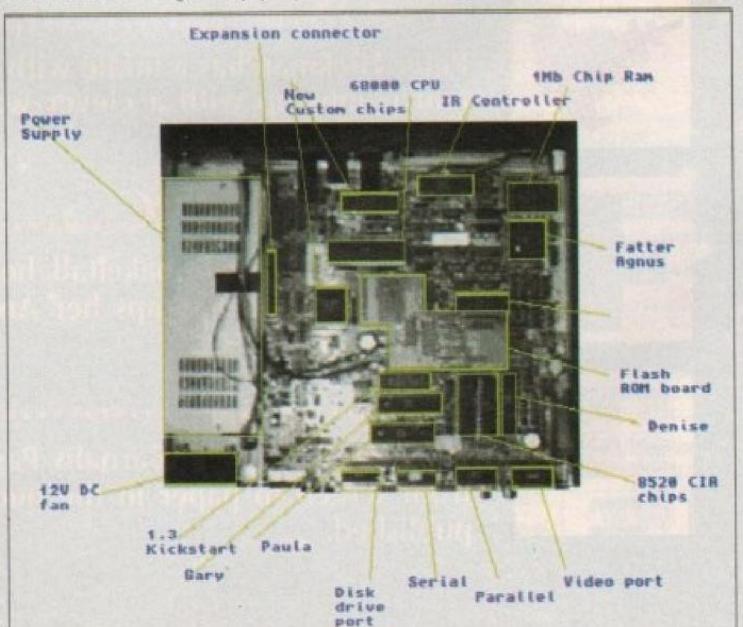
The largest chip on the board is the 68000. It's a straight, 8Mhz chip, which is a little disappointing. Many people were expecting at least a

16Mhz chip, which costs only a few pounds more yet offers a great performance benefit. In the end Commodore probably decided to stick with the standard 68000 to make Amiga to CDTV conversion a relatively easy and hassle-free process. Easy conversions means more software, more software means more CDTV sales for Commodore, which will benefit all of us in the long run.

The Amiga's custom chips are there too; Fatter Agnus, Paula, Denise and Gary. The Denise is the original old Denise chip, the new ECS Denise chip doesn't offer many advantages when displayed on a television – which most CDTVs are destined to be connected.

The odd and even CIA chips are there, and these control the disk drive, mouse port, parallel and serial ports. Strangely there is only one mouse/joystick port connected to the back of the machine. If you want to play two-player games then you will either need one person using a wired joystick and the other using the remote control, or you will have to wait for Commodore's infra-red joystick controller, which will control two standard joysticks.

Our old favourite, the Kickstart 1.3 rom is on the board too. It is a plain, unadulterated (ie the bugs haven't been fixed) Kickstart 1.3 rom. Commodore have told developers that the CDTV will never



out

support Kickstart 2.0 again, for compatibility with present "titles".

There are two extra sockets for the CDTV's custom roms. These contain the flashy graphic sequences and all the code needed to drive the CD.

At the moment there is a small daughter-board plugged into these sockets which carries two flash roms (or EEPROMS - Electrically Erasable Programmable Read Only Memory). In fact, rom is a bad word to describe these, as they are fully reprogrammable under software. The idea behind this is that if any major problems are found with the CDTV operating system, it can be upgraded in existing machines just by running a floppy disk in an attached disk drive. Later production machines will have these flash roms replaced by standard rom chips, as soon as the existing code has been declared 'bug-free'.

There are three new custom chips thrown in for good measure. These control the CD-ROM, the ram card drive, the front panel and the infrared receiver.

The CDTV has 1Mb of chip memory fitted as standard, there appears to be no obvious way for the machine's memory to be expanded at all. This, from Commodore's point of view, is a good thing, as it means that there will only be one CDTV configuration available, which makes life a lot easier for "title" developers. A CDTV disc is called a title. Commodore don't want people using the word software as they don't want the CDTV thought of as a computer.

Full motion video

There is a spare, unlabelled, expansion socket on the mother-board which appears to pass through the processor bus, in the same way the expansion bus connector on the A500 does. Although this is not documented anywhere, it would seem that this is where the under-development Full Motion Video (FMV) board will fit in. Currently the CDTV can only display moving video images using Commodore's proprietary CDXL system, which displays 1/4 screen images at 15 frames per second, a little short of the full-screen images at 25 frames a second needed by FMV. Philips and Sony, who produce the rival CD-I system, have announced that their machine will ship with FMV support next year.

The problem with Full Motion Video is with the CD-ROM unit. CD-ROM is not very fast at transferring data. It's faster than floppy drives, but not a lot. A typical Amiga hard drive will transfer somewhere between 500Kb and 1000Kb of data per second from the drive into memory. For a CD-ROM the transfer rate is around 150Kb/sec. Now, a full-screen compressed HAM image will take up about 50Kb, so if you wanted full-screen video from a CD-ROM you would only get three frames per second displayed. For true



full-motion, you need to compress these HAM images down from 50Kb to about 6Kb. Impossible? With a standard CDTV, yes, but with some complex and very powerful custom processors, video images can be compressed down this far and decompressed back in real-time for display with very little loss in picture quality.

External input

Turning our attention briefly away from the insides of the machine and to the back of the case we find an assortment of ports which are familiar to most Amiga users.

Standard parallel, serial, monitor, audio and disk drive ports are connected. The disk drive port is slightly different in that it is wired up so that the first external drive is d0:, the second d1: and the third d2:. The CDTV can only support three floppy drives, rather than the four that the Amiga can support, as there is no internal floppy drive and the 23 way connector only has enough lines to operate three drives.

Next to these ports are two small mini-din connectors for keyboard and mouse. It was very disappointing to find that Commodore did not put standard joystick/mouse/keyboard connectors on the CDTV, particularly as apart from the shape of the connectors they are totally standard. If you have a CDTV and you want a keyboard connected to it, all you have to do is get an Amiga 2000 (or 3000) keyboard and wire up a DIN to mini-din converter cable using the following pins:

Mini-DIN (CDTV)	DIN (keyboard)
1	4
2	2
3	1
4	5

Underneath these standard ports is the power connector, a standard kettle lead power connector and, for the first time in an Amiga-based machine, Midi-in and out connectors. Already there are titles like Music Maker which can make

good use of these. With built-in Midi, a 540Mb drive and a shape and size that is ideal for work on-stage it would not be surprising to see the CDTV making quite an impact in the music scene over the next couple of years.

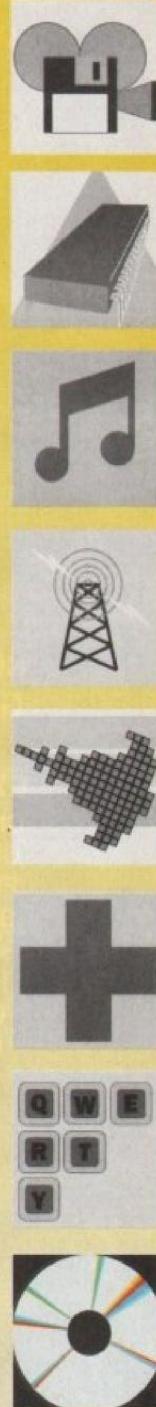
To the right of the Midi ports are the two expansion slots. The slots are not very big, the connectors look similar to the type of edge connectors used in Commodore 64 cartridge games, so there won't be a lot of room for complex circuiting on them. The Video slot comes occupied with the modulator. The PAL modulator has RF in and out (You can plug the CDTV in between your video and your TV without having to re-tune everything) and a composite video output. The NTSC modulator also has super-VHS output, but we don't get that yet over here.

There is an optional Scart connector board which gives a Scart plug instead of the modulator. I'd recommend not getting this, but buying a cheap Amiga-Scart lead instead and using the CDTV's 23 way connector. This leaves the CDTV modulator intact so you can use it on a non-Scart TV without having to switch boards over.

Digital Creations in the States, the manufacturers of the highly popular - but NTSC only at the moment DCTV 24-bit graphics add-on for the Amiga have built an internal version of the DCTV (called DCTV-CDTV) which will fit into the video slot. This will then give the CDTV full 24-bit quality graphics, which will help to narrow the technical gap between CDTV and the rival but much more expensive CD-I system.

The other expansion slot, currently empty, is for future CDTV add-ons including a 100Mb Internal hard drive! Don't expect this one for a while though, the current cost of 2.5in 100Mb hard drives is as much as the CDTV itself! No doubt there will soon be a vast array of weird and wonderful third party devices to fit into the CDTV. Now, can you imagine a home use version of the Video Toaster for the CDTV.

The future for the CDTV is going to be an exciting one. Stay tuned....



Ever since the release and subsequent marketing catastrophe of CDTV, the Amiga has been gagging for a ROM drive all of its own. Now after a year of solid speculation, Commodore have finally done the decent thing and released the A570.

This unit instantly transforms the A500 Plus, or in fact any A500 installed with 1Mb of chip RAM (Fatter Agnus) plus Kickstart II or 1.3, into an instant CDTV.

The RAM configuration is essential for operation of the A570 and could well explain the mysterious appearance and subsequent disappearance of the Plus as a Commodore product. Is it possible that Commodore released the Plus merely to create a user base for the CD-ROM drive? Surely not...

Although the A570 has appeared in countless mags in its pre-production state, AC – as ever – is the first magazine to bring you the full story of what could well be a revolution for the lowly base-level Amiga.

Before the dive headlong into the potential of the drive, a brief tour of its physical attributes is in order. As you can see from the photography, it's basically a very simple unit.

Simplistic

Installation couldn't be easier – all the user need do is remove the cover on the DMA expansion port and slide the drive into place. Audio connection is equally simplistic with the audio outs from the Amiga connecting directly into the A570 while a second set leave the A570 and connect to the monitor or amplifier as normal.

The reason for this slightly strange arrangement is that it allows Amiga and CD sound to share a common input while mixing output from both sources.

Alongside the four audio connections the unit boasts a mysterious expansion slot – which we'll look at in detail later – and of course the inevitable power socket for yet

another hefty Commodore house-brick. Moving to the front of the unit, features are fairly sparse, and dare I say, stylish. Most obvious is the trapdoor which awaits the CD and caddy combination.

Alongside this sits the eject button accompanied by the far less obvious power and access lights. On the far left of the unit lurk the headphone socket and the dual on/off and headphone volume control.

Insertion

The only other item worthy of mention is the accompanying caddy, used to house CDs prior to insertion into the drive. To the average hi-fi fan who's used to simply dropping audio CDs into a convenient sliding drawer, the hassle of opening, closing, and inserting CDs into the caddy and subsequently into the drive itself can be a tad irritating.

Although a seemingly strange procedure, it's nevertheless all for a good reason. On standard CD players, missing the odd byte reading the disk would be unnoticeable.

But when the output is program data rather than a simple stream of digital music, even the slightest error will cause a software failure.

This is the reasoning behind the use of a caddy. First it's essential that the disc is read correctly, but perhaps more importantly it's vital that the disc is not damaged.

Unlike audio discs, CD-ROMs don't claim near indestructibility – in fact they're relatively frail little items that need the caddy to ensure safekeeping.

Another bonus of the accuracy required for data transfer is the playback quality of standard audio CDs. Although not designed specifically for the job, the A570 will easily outstrip the average home CD player in the sound quality stakes.

Like installation, application is equally simple. If no boot disk or hard disk auto-

Software spectacular

Thanks to the release of CDTV there's already a very respectable supply of software, the vast majority of which is interactive, encyclopedia-style material designed for the education and yuppie entertainment market, which CDTV aimed for but apparently missed completely.

Many of the more familiar Amiga-style CDs are affectionately known as "shovelware". In short, software that makes no attempt to take advantage of the A570's interactive and accessing power but merely employs it as a 600Mb storage device.

Still it's not all shovelware and encyclopedias, as many of the latest second generation releases are very impressive indeed.

A perfect example is Icom's *Sherlock Holmes - Consulting Detective*, which employs all the capabilities of the system to produce a truly astonishing interactive game featuring real actors, in real sets, digitised speech, and much more besides all combining to produce a stunning game and truly wonderful atmosphere.

Like many of the latest releases, the program takes advantage of the proprietary CDXL format which allows the transfer of huge amounts of data direct from ROM to the CPU at unbelievable speed, especially considering the limitations of a standard A500.

Thanks to the CDXL system, around 15 frames a second of quarter screen full-colour digitised video can be spooled direct from ROM. With over 600Mb of storage on hand, awesome games software will inevitably produce the "must have" product that could launch the A570 and the CDTV into the big league of home entertainment.

Expansion options

Like any good peripheral, the A570 has upgrading options built in. The most vital is the rear expansion port which allows the addition of A600-style 2.5in IDE hard disks which can vary in size from 20MB up to 120MB.

Although an optional HD is a pleasant addition, it would have been a better policy to add a through port on the A570 itself. Because of this annoying omission users with existing HD's aren't likely to have Commodore on the top of their Christmas list.

If you're one of the lucky few with a hard drive which boasts a built-in DMA through-port there's no problem, but unfortunately such drives are few and far between.

Aside from the optional IDE expansion, the A570 can also handle 2MB of fast RAM internally, although if you already have RAM expansion on your Amiga it will be taken advantage of by the A570.

boot option is present, the drive simply takes control of the system and boots the CD in the drive, or alternatively throws up the familiar CDTV intro screen.

At this point you're in the "please insert a disk mode". If you insert a standard Amiga floppy, the system will boot as normal. Alternatively, if a CD-ROM is inserted, the A570 takes control and will either load a Workbench or auto-boot the CD software depending on how it was written.

Even when the floppy route is taken you still have full access to the CD-ROM as it then becomes an additional device entitled CD0: Just like any other drive, you can copy files from it, or run programs within it. The only difference is that it's impossible to actually write data. Another nice touch is the

addition of a small utility which allows remote control of standard audio CDs from Workbench. Obviously standard CDs can't be read via AmigaDOS.

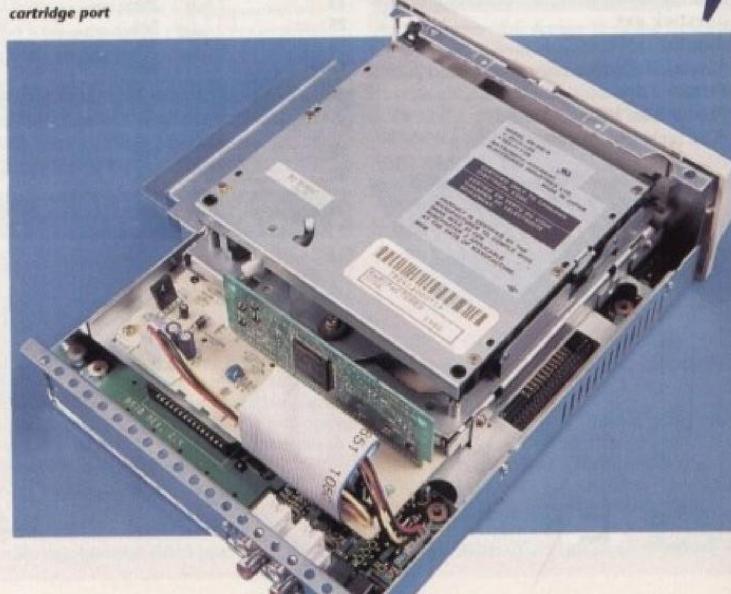
As a result, Commodore have added CDplay which allows you to hop around and play back normal CD tracks while using any standard intuition-based software as normal.

If you're neither a game player or in pursuit of endless trivia, the A570 may seem a little pointless. In fact that's far from the truth.

Now Commodore have finally admitted that CDTV or more precisely CD-ROM is part of the overall computing environment, developers of power application would be mad not to take advantage, as they already have on both the Mac and the PC. The floodgates

A570 – facts,

A570 internals, showing the CD itself and the rear cartridge port



are now opening for CD-ROMs dedicated to power applications, hundreds of PostScript fonts, clip art numbering in the thousands, texture maps and 24-bit backdrops by the bucketful - all stored on designer CD-ROMs.

A perfect example of this already exists in the form of CDPD, which is a single ROM holding the entire Fred Fish collection from disks 1 to 660.

Aside from Amiga CD-ROMs it has been claimed that the new drive will access existing PC and Mac power ROMs - clips, fonts, 24-bit textures and so on.

Although extras such as hard disks and additional RAM are already in hand, that's only the tip of a sizeable iceberg which if implemented could make the existing capabilities of the A570 look rather pedestrian.

AVM

The first of these additions will be a system already available on the CDTV which unfortunately has been initially left off the A570. Advanced Video Mode - AVM for short - will allow the A570 to access pseudo 24-bit graphics in the style of CDTV.

Once installed the upgrade will allow on-screen graphics with 256,000 colours from a palette of four million, as opposed to the lowly 16,000 colours on-screen offered by the Philips CD-I system.

According to Commodore the aforementioned dealer-fitted upgrade should be available around September/October '92.

Aside from AVM, perhaps the hottest news has to be the development of the Mpeg chipset which when complete will allow real time, full frame, full motion video at the broadcast standard of 25 frames per second. According to Commodore's Gary Lewis, the imagery and

accompanying CD-quality sound will be well above that offered by standard VHS tape.

Mr Lewis went on to claim that a full 72 minutes of digital audio/video could be squeezed onto a single CD-ROM thanks to the astonishing compression and decompression features of the new Mpeg chipset. And thanks to the interactive capabilities of the system it could even be possible pick your own ending...

Piracy stricken

It remains to be seen how close to the truth such claims actually are, and I'm afraid we'll all have to wait until '93 to find out. If the hardware matches the marketing it's sure to be a popular format for the piracy-stricken video industry. But it remains to be seen if the consumer will be ready to forsake the recording ability of VHS for the added audio/visual clarity of CD-ROM.

Some of you may well be thinking this is all fine for the A500 Plus mob but what about the rest of us? Well - and I quote - "Commodore are devoted to CD-ROM throughout our range".

After a little more prompting it was confirmed that they plan to have the A600 CD-ROM drive - namely the A670 - on the market hopefully before Christmas and at the latest early next year, followed by a standalone external unit suitable for A1500s and above in spring/summer '93.

With the exception of the infuriating lack of a DMA through-port, the A570 is just what the doctor ordered for education, entertainment, and given time, power applications.

The sooner suitable drives spread across the entire range the better, but with AVM and Mpeg technology in the pipeline Commodore appear to have transformed the CDTV turkey into a real spring chicken...



not fiction

Paul Austin brings you the definitive guide to the long-awaited A570 CD-ROM drive, set to bring multimedia to the masses



The A570 is available from all major suppliers. Commodore official retail price: £349.99

The release of CDTV, well over a year before the planned launch of CD-I, was in hindsight a bold move. Though many wondered what market the device would appeal to and whether consumers would understand what CDTV was about, Commodore went ahead with its launch as a purely consumer product.

Styled in a VCR case and sold through high street stores such as Dixons, CDTV was flagged as a revolutionary family education and information tool which could also be great fun.

Initial Commodore instructions about CDTV's marketing were so adamant about the machine's severance from computers that they specified a distance of at least four feet be kept between the machine and any Amigas being sold in the same shop.

The tactic failed. First year sales of CDTV topped little more than 15,000 units (now standing at 20,000), a figure which though forming a solid base for today's CDTV developers can in no way be touted as a mass market consumer success.

It's not clear if the failure was due to a marketing blunder or an unready public, but Commodore weren't slow to get the message.

Separatist

A brand name was needed, and it wasn't long before the hitherto separatist CDTV was proudly sporting the name Amiga CDTV, at first in Commodore's press statements, then as a badge and a marketing policy.

Amiga is a name synonymous with consumer electronic success, known by millions of people across the UK, and those who considered Commodore barking mad not to have taken advantage of this from the outset were given the grudging pleasure of joining the chorus of "told you so" merchants.

Industry bad mouthing is far from uncommon in the computer world, but CDTV has

suffered from more than its usual share.

The situation at its launch was akin to the fresh-faced new boy at high school disappearing under a crowd of yelling, spitting third-year thugs.

Unfortunately, in the hard world of consumer electronics, it simply isn't possible to say "I'll get my big brother to smash your teeth in", so CDTV had to sit back and take it.

The machine wasn't faster, had no new chips, no hard drive, and looked nothing

like a computer. Hardly surprising, then, that the Amiga press took some time to get used to CDTV, but why the sneering insults, contemptuous plays on the CDTV initials (my personal favourite was Cold Dead Turkey Vision), and airy dismissals of its future potential?

Possibly the answer lies in the Amiga world's possessiveness and near-fanatical cynicism over just about anything Commodore gets up to.

Amiga enthusiasts in general, and the

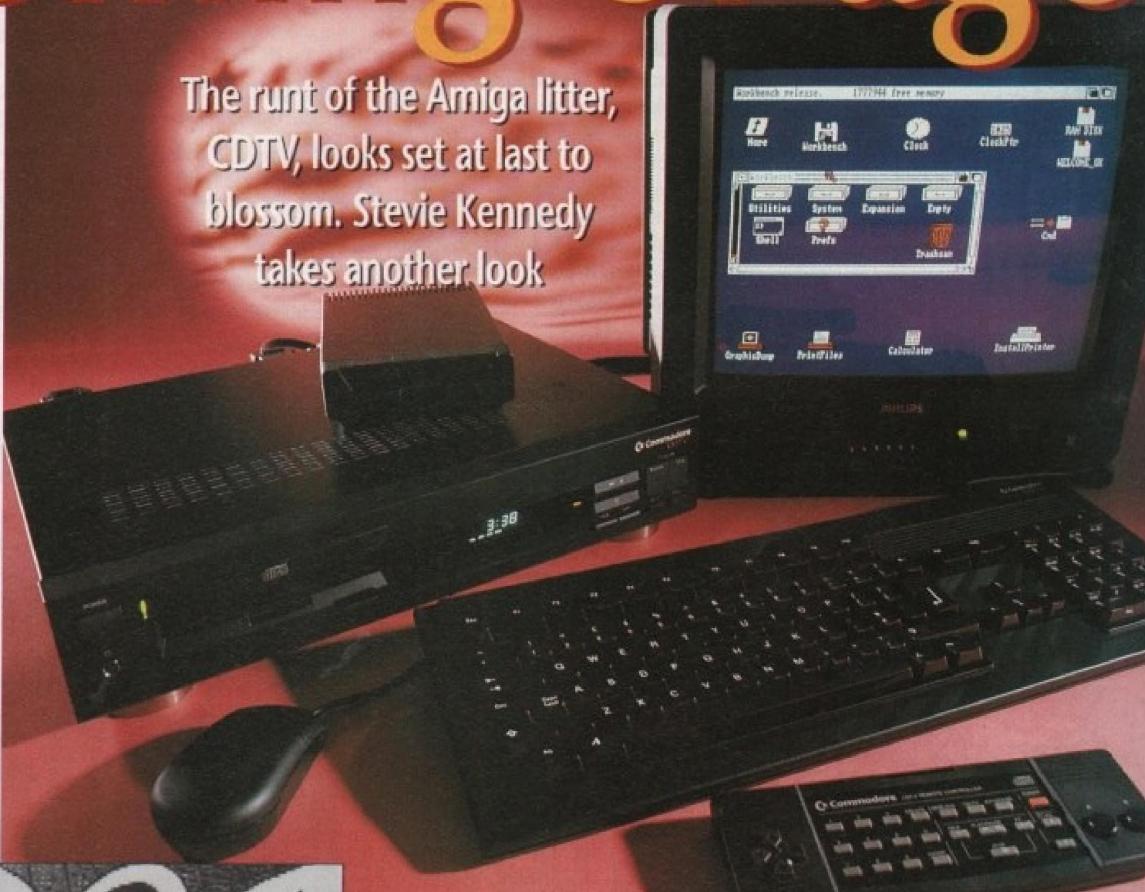
press in particular, have a sizeable personal stake in the machine (we at AC make our living from it, after all), and this can often lead to over-sensitive reactions.

Commodore's seemingly one-tracked development of CDTV when there were no new Amigas in the pipeline, long delays in the appearance of the A570, and initially very poor software didn't help the situation, but attitudes look set to change.

The new Amiga CDTV packs, complete

Coming of age

The runt of the Amiga litter, CDTV looks set at last to blossom. Stevie Kennedy takes another look



Learning French is just one educational use for CDTV

Expansion limits

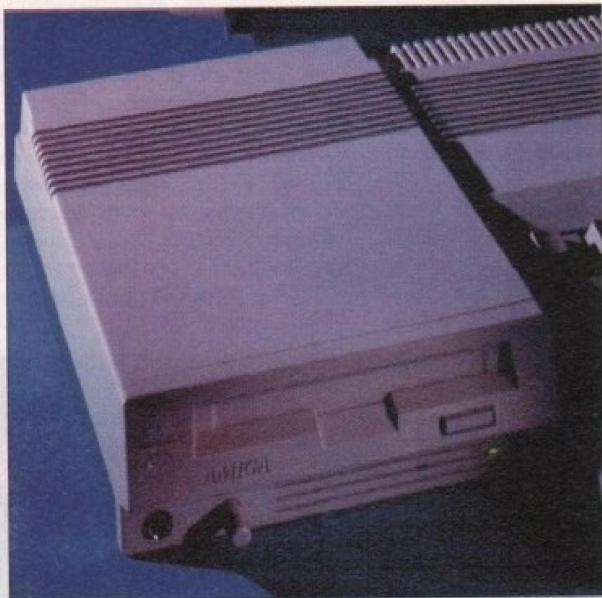
One worry about CDTV which many Amiga users have expressed is that of expansion. Since its release, CDTV has enjoyed little in the way of peripheral support, but the situation is slowly changing.

The unit for this article was supplied by Calculus as the Professional CDTV pack, equipped with the Commodore keyboard, mouse, and floppy drive. In addition, however, there is a 65Mb hard drive and 2Mb chip RAM upgrade inside the CDTV casing.

With such expansion, the price of the Professional CDTV pack reaches £649.99, though this could rise once the introductory period expires.

Benefits for the multimedia user are obvious, as CDTV in this configuration becomes much more powerful as an Amiga system rather than as a floppy drive-equipped CD-ROM unit.

The much delayed release of the Advanced Video Mode card in November will add a new graphical dimension to CDTV software, and developments in A600 PCMCIA smart card technology will be available to CDTV owners through their own standard PCMCIA slots. The result is a CDTV unit with real power and a lot more punter pulling power.



Commodore's hopes lie in the A570, which it is hoped will boost the CD-Rom market

with floppy drive, keyboard, and mouse, better software, and improving expansion options are making CDTV more attractive.

With more software in the pipeline and a much larger potential user base of A570 owners or those who take advantage of the trade-in deal, CDTV should be a much more significant player in next year's Amiga market.

Paradoxically, software piracy could play a major positive role in the machine's revival of fortunes.

Protection, both on-disk and in manual form, has proved lamentably incapable of fighting piracy, leading most software houses to hike their prices, and forcing others to retreat in part or in whole from the Amiga scene. CD-ROM discs, however, are virtually unpiratable.

So much data is squeezed on to one disc that to pirate even a single CDTV game in floppy form is impossible. In addition, the

outlay involved in CD mastering systems (at least £5,000) will relegate CD-ROM piracy to a few professional thieves, exactly the sort of conditions which would make policing the copyright laws easier.

All in the garden, however, is not rosy. CDTV is still very much a small-time player, and one which depends on what is fast becoming old Amiga technology.

Obvious

If the new Advanced Graphics Architecture chips found in the A4000 and A1200 prompt a flurry of better, more colourful games, the choice between one of the new machines and a CDTV system would look obvious, especially as Commodore plan to release internal CD-ROM drives for the new range.

CDTV's ace-in-the-hole could be the Advanced Video Mode hardware based around DCTV true video technology and involving the MPEG (Motion Picture Expert Group) data compression chips.

Both Commodore and Philips plan to install these chips to boost their respective CD units' capabilities with full motion full screen video (FMV).

Using the lightning-fast decompression offered by MPEG chips and the 650Mb storage of one CD disc, CDTV could offer completely animated games with incredibly realistic graphics.

Philips are presently developing feature films with alternative endings - up to 72 minutes of digital video can be stored on one

Slow software

The nature of CDTV software, with its 650Mb discs and intensive sound and graphics, makes development of new titles a slow job.

The first CDTV releases were, let's face it, pretty awful, but over the last year there have been improvements in design, quality, and use of the machine's features.

Only now however, 18 months after the machine's launch, are true CDTV games beginning to filter through the lengthy development system.

More and more are using CDXL, the quarter-screen HAM animation format, to bring pseudo-video effects and digitised film to such discs as the NASA history of space flight and Sherlock Holmes Consulting Detective.

In short, the machine is finally being used properly by the software rather than as a CD-based platform onto which standard Amiga games can be ported.

We can relate this situation to the early Amiga games, such as Interceptor and Starglider, which were the first to make full use of the machine, showing how quickly software improves.

If Sherlock Holmes is to CDTV what Starglider was to the Amiga, we can only drool with anticipation at the software we should be seeing a year from now.

The A570 factor

CDTV was desperately in need of a shot in the arm this summer or, using the alternative Commodore marketing spiel, was nearing the second phase in its development. This came in the form of the Amiga badge link and the release of the A570 CD-ROM drive.

Sales of the original CDTV unit have reached only 20,000 so far, but Commodore are predicting total sales of 50,000 before the end of 1992, over 20 per cent of which is expected to be in the form of A570 drives. Obviously, with more than a million A500s in UK circulation, the potential market for the A570 is vast.

One flaw in the argument is the drive's running requirements. Only A500 Plus owners and a few dedicated owners of

older Amigas have the 1Mb chip RAM and Kickstart 2.04 needed by the drive before it will work, a fact which has prompted some to suspect Commodore released the A500 Plus solely as a platform for the A570.

Between 200,000 and 300,000 A500 Plus sales in the UK guarantee a sound base for the CD-ROM drive, but Commodore will still have to convince users to part with £299.

Given the company's much repeated 100 per cent support for the Amiga's CD future and a killer of a game bundle this Christmas, we might just see the majority of Amiga software appearing on CD-ROM as well as floppies before summer next year.

for a summer 1993 debut.

CDTV has come a long way since the first machines appeared with a few dodgy encyclopedia discs and inferior games. True CDTV software is beginning to reach the streets, developed over the last 18 months, which takes full advantage of the machine's unique talents, and which should encourage more sales.

If you doubt that CDTV has a future, just take a quick look at the Sherlock Holmes game due for release soon. Five minutes with this and even the most hardened CD-ROM cynic will be clamouring for more.



Commodore Amiga 500

Pure Dynamite



Art, music, and more from the better software titles

SONIC EGGSTAS



Games with 3D-sound? Rik Haynes turns the speakers up to max volume and gets ready to megablast...

Are you tired of those boring white noise explosions heard in most video games these days? Well, prepare your ears for a severe shock! Stereo sound finally being dragged into the nineties. Three dimensional noise has arrived.

Roland Sound Space (RSS) gives sounds depth and direction, and is completely compatible with existing stereo speakers. In technical terms, RSS eliminates the cross-talk which prevents the full depth of stereo signals being heard. You can have drums coming from the left-hand side of the room, guitar on the right, bass somewhere in the middle and keyboards

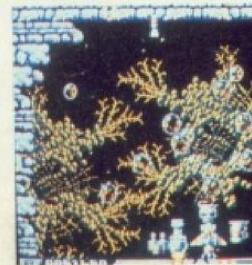
coming from behind them. These neat effects are put onto music at the mixing stage. You just feed your ordinary music through a box of tricks made by Roland UK and heystro, you've got 3D-sound. I can't wait for the first Muzak application!

Inspired by a new technical toy to play with, sampling wizkid Tim Simenon of Bomb the Bass used RSS on his new album. Not to be left behind, the Bitmap Brothers have employed the technique in their first CDTV title, a laser-guided update of the award-winning

overhead. By making one sound slightly duller than the others, you can fool the listeners ears and brains into automatically believing this sound is coming

Xenon II. This craze has now filtered out to the general CDTV development community. Publishers can simply hire some kit for the day from Roland and go into the studio.

Xenon II was the perfect choice to be the premier RSS game as sound was such a major plus point in the original Amiga version. Using their connection with Rhythm King Records, the Bitmap Brothers managed to persuade Bomb the Bass to go back into the studio and record special remixes for the CDTV adaption. Each new meltdown mix lasts



WORLD IN MOTION

To help compete with rival CD-based platforms, developers working for Commodore in the States have produced a software solution to display digitised video on a standard CDTV. The so-called CDXL can display third-screen full motion video at a rate of 15 frames per second. This software algorithm has now been made available to encyclopaedia and education software developers like Xiphias and Discis. Further enhancements to the CDXL code are already under way.

Commodore has confirmed an add-on CD-ROM drive for existing Amiga owners, effectively turning the Amiga into a CDTV, will be launched in September for around £300!

better spot effects. This is made possible by the fact that the soundtracks are pulled directly off the compact disc, so the Bitmap Brothers can devote the four internal sound-channels and over 512K of RAM to just producing cool sound FX.

Making sure they don't make any mistakes, publisher Imageworks has also drafted in the original programmer Martin Day, to oversee a smooth conversion to CDTV.

Sadly, the actual game itself won't be any bigger or better. Instead, players will get special multimedia presentations of how to play the game, and 'features' on The Bitmap Brothers and Rhythm King Records. These audio-visual sequences will introduce you to each weapon system, alien spacecraft and so forth. You may also get a few hints and tips. User-friendly appears to be the name of this game. And why not?

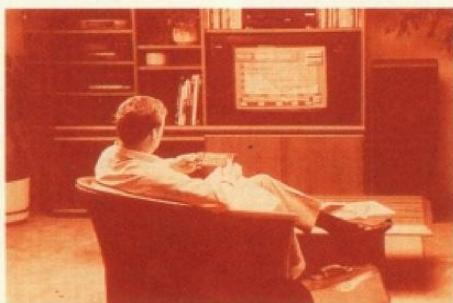
Although the CDTV version of *Xenon II* is only the Bitmap Brothers' tentative steps into multimedia, they seem to be well and truly hooked. This highly regarded software developer is in a good position to go fully multimedia, thanks to the back-up resources of various music and film studios worked by parent company Rhythm King Records. Spokesperson Eric Matthews confirmed that they're interested in producing something that is specific to the CD-ROM medium. CDTV has an advantage over other formats because the Bitmap Brothers know the Amiga inside out. It's still too early to talk about ideas in detail, sound will again play a large part in the product. Matthews is most enthusiastic about the possibilities of CD-based games, but wants to start the next project from scratch. A CDTV adaption of *Speedball* therefore looks unlikely.



At last the CDTV is finally about to enter the shops.



Promoted as an educational tool, there's no doubt that CDTV games will be brilliant.



A cosy look at CDTV's business uses.



These images and sounds are stored on special compact discs, but the CDTV can also play ordinary audio CD's – including the new compact disc plus graphics (CD+G) format. The massive 550 megabyte capacity of each compact disc means they can store around 250,000 pages of text or the equivalent of 700 floppy disks.

Just to make sure of you becoming a CDTV owner, Commodore is bundling three software titles with each player. With the 1991 CDTV edition of the Hutchinsons Encyclopaedia, you can hear the speeches of Neville Chamberlain before the outbreak of World War Two, see a volcano erupt or look-up the facts on Prime Minister John Major (great if you're suffering from insomnia). Even the most hyperactive child should be entertained by the 25,000 entries, 7,000 biographies, 2,000 pictures and 250 charts contained in this product. The Encyclopaedia is joined by an Introduction title and the critically-acclaimed Lemmings from Psygnosis. The latter disc also contains an impressive demonstration of The Fractal Engine featured in the previous issue of



CU Amiga.

Commodore has announced 25-30 titles are already available for the CDTV and that up to 250 developers in the USA, UK and Germany are currently working on more. Each title is priced in the region of £25-£30. The hardware and software should be available in up to 2,500 stores by Christmas. The firm expects to sell over 80,000 CDTV decks in the UK during the first year of release. Commodore is also talking to the high-street rental companies who are desperate to find a replacement for the ailing TV-hire business.

"CDTV opens up a whole new world in consumer electronics and will radically change the way people learn and are entertained at home," says Commodore Managing Director Steve Franklin.

Despite an enthusiastic reception from the likes of Dixons and the education establishment, voices of dissent can still be heard throughout the games industry. The cost of creating a decent quality CD-ROM product isn't cheap. Feeding the user with massive amounts of data, digital audio and full motion video can cost in excess of £250,000 per title.

Electronic Arts, publisher of *Populous* and *Powermonger*, has a typical response to the CDTV. "We are developers for it, but there's currently nothing in the pipeline," confirms spokesperson Simon Jeffery. "We're very much committed to the concept of producing CD-based software as we have a lot of projects going on. We're not totally convinced that CDTV is right at this time. The access times aren't fast enough for games. For home multimedia purposes it's an excellent machine. We want to see how it does."

Again, like many other games publishers, EA isn't completely negative about the CDTV. "There's a very good chance that we'll support it. We're looking at enhancing existing products and developing totally new projects."

NEXT MONTH...

We're taking an in-depth look at the CDTV and the first titles to hit the streets. We'll also be talking to more developers about their plans for the CDTV. Will they be using the motion video capabilities of CD-XL? There's only one way to find out why Snoopy has gone digital. Don't miss it!



CDTV ARRIVES!

After months of waiting, you should finally be able to walk into your local retailer and buy a CDTV. The world's first interactive multimedia machine for the consumer will cost you a whacking £599.99 (inc VAT).

Linked to a normal TV set and hi-fi system, the CDTV can display a combination of colour pictures, text, graphics, animation, video, voice and stereo music.

Currently, there's no real money in computer games: we're waiting for the time when there's a true mass market like the one for videos or films. And CD-ROM could make that possible. The CDTV is the first viable home CD-ROM system: a CD-ROM drive for the PC Engine games console, launched way back in April 1989, never quite made it and CD-ROM systems for the Apple and IBM PC business computers have never made it into the home. Commodore have got there first.

Multi what?

The second big first for CDTV is the concept of 'multimedia'. This peculiar little word is a real buzzword for the 90s, but it actually covers quite a simple concept. Essentially, the idea is that a good computer system is capable of presenting its information in any way it chooses: text, graphics, animation or sound.

Intrinsically linked with this is the idea of information structures. A film or a TV news report, for instance, is a linear structure: the pictures and the sound are thrown at you in order and you just sit there and take it. When you add in the interactive angle, you can have a structure that allows the user to choose where to go and what to see next.

If games are the movies of the interactive world, multimedia titles are the books. Typical examples are works of reference, like Atlases: you could start off with a globe on-screen which you could spin around under your control, then select an area to zoom in on, accompanied by a hi-fi soundtrack perhaps.

You could click on a country to bring up a map of it, then choose to find out more about the climate, geology, history or whatever by clicking on an icon. Information could then be presented to you as charts, photographs, film footage or illustrations accompanied by a narrator's voice.

If it's done right, it could be incredibly easy to use as well as a very satisfying and enjoyable way to get information. It would be perfect for education and for training in a commercial environment, and it could also be big for what's called 'Point of Sale' systems, which is likely to be most people's first encounter with multimedia. Within the next year or so, you're going to find yourself using a point of sale system to look up what's available in a shop on a multimedia catalogue, complete with pictures and descriptions from a narrator. Places like museums and art galleries are going to love systems like this too.

"Books were really great in their day," stated Commodore's chairman, Irving Gould, when the CDTV was first announced, "but books right now don't cut it. They're obsolete". Now

The CDTV will be supplied with a Welcome disc that shows you round the system, thereby replacing the manual, and two titles: the game *Lemmings* from Psygnosis and the CDTV interactive version of Hutchinsons Encyclopaedia.

The main pieces are an Amiga 500 circuit board and a standard CD-ROM drive. A RAM expansion gives the CDTV 1Mb of memory. The custom chip set is the original version not the ECS, so only the normal Amiga screen display modes are available.

When you switch on, an expanded 512K Kickstart ROM prepares the disk operating system. It is expanded to handle the CD-ROM drive, but it will happily boot from any external Amiga floppy drive, which means you can boot from Workbench or any self-booting Amiga software. Some Amiga self-booting games won't run on a CDTV.

When no boot disk (CD or floppy) is provided the system rests on the CD player mode: the screen that controls CD playing is loaded automatically from the ROM. It's not a CD player for the hi-fi buff, but it's perfectly adequate. It will also play CD+G (CD and Graphics) discs.

The system also features a 2K non-volatile RAM for the clock and Preferences. Details such as screen centering, time and date can be set by selecting the Preferences screen in the rest mode when no boot disk has been inserted.

The CD drive is an off-the-shelf Philips/Sony unit running the ISO 9660 standard (this year's "standard most likely to succeed", which should ensure compatibility with most CD-ROM software). Data loads in from the CD very rapidly, at roughly twice the speed of the average hard drive.

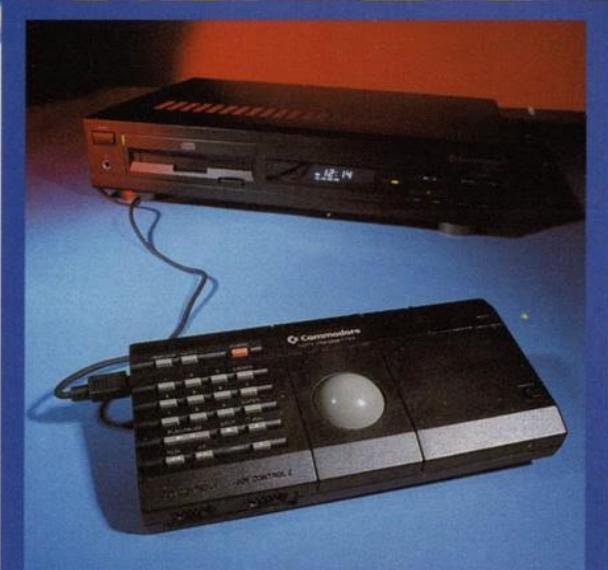
Also included on the circuit board is a connector for a genlock, which can be fitted as an added extra and has three forms of output under software control: CD only, video only or mixed.

clearly the man's talking out of his bottom. No-one wants to read a novel as text on a TV screen: it's just not sensible. But many kinds of book, particularly reference works, will be given a whole new dimension by the multimedia idea.

Black magic

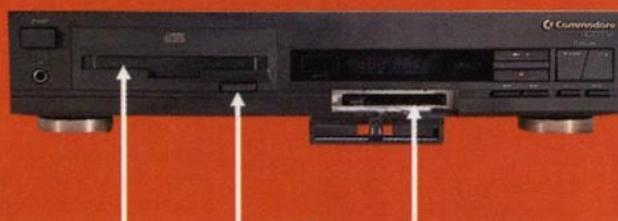
The third ace up the sleeve of the CDTV is that it is a computer, but not a computer. The importance of this should not be underestimated: we might be used to computers, even love them, but the majority of people aren't keen. Even though computers are increasingly becoming an everyday tool for anyone who works in an office, people still don't like the things: they're associated either with word processing, or with programming and an endless nightmare tale of technical jargon and incomprehensible problems. Anyone who owns an Amiga must be able to sympathise.

On the other hand, people quite like the things that computers can do, even if it's just games. You should see my Dad playing *Killer Gorilla* on a



A number of accessories will be available for the CDTV, including a keyboard (infra-red remote or attached by a wire), a mouse (again infra-red remote and known as the Hamster 'because it doesn't have a tail') and this two-way joystick and trackball attachment. The ordinary remote control pad has proved less than satisfactory for playing games with, because it's too slow and erratic, so this one plugs in with a wire. Official CDTV external floppy disk drives and even printers should be available eventually. Prices are not as yet known.

What's inside a CDTV?



The CD is inserted in a plastic tray called a 'caddy'. One of these comes with the CDTV and can be opened to put any music CD or CDTV title in. Some CDTV titles will come with their own caddies and spares will be available as an accessory, costing initially about £7 but getting much cheaper.

The flip button ejects the CD caddy, but it is also a reset switch, working exactly the same way as the Ctrl-Amiga-Amiga key combination 'warm reboot'. This ensures a disc is not being accessed when you flip it out.

This flap in the front gives access to the place where you plug in a 'smart card'. The smart card could be ROM or RAM and will hold anything from 64Kb to 512Kb of data, so it can be used for saved game positions and more besides. It seems that smart cards will be available as an accessory at extra cost and will be able to store your current position in any application, but it may make more sense for them to be supplied with any titles that need them.



WHY YOU WILL MAKE OR BREAK THE CDTV

You are very important to Commodore. You could decide the future of the CDTV. Why? Well, it's a simple enough story.

There are already more than half a million Amiga owners in the UK and by early next year, there could be as many as 700,000. Very soon, Commodore will be launching a CD-ROM drive as an add-on for the Amiga: they say September, so it might be with us before Christmas.

If they can price it right and convince a good proportion of Amiga owners to buy a CD-ROM drive, it gives them an instant market for CDTV software. This instantly makes it worthwhile for software houses

to spend money developing the titles, secure in the knowledge that somebody will buy them. An added bonus is that you people are used to paying £25 or £30 for a game (CD-based titles won't generally be any more expensive than your normal floppy disk stuff) whereas the general public pays about a tenner for a video or a music CD.

The only figures Commodore have for how many Amiga owners will buy a CD-ROM drive are from the results of the survey in Issue 16 of *Amiga Format*. You, our readers, are already making Commodore's policy for them worldwide, including setting the price of the CD-ROM drive.

So what are the figures? Well, when asked "Would you like to upgrade your Amiga system to run CDTV software?" 98% of you said Yes. That's well in excess of 100,000 potential CD-ROM buyers, even if you only take *Amiga Format* readers: if you extrapolate that to all the Amiga owners in the UK, it could be five times that. Now listen up: by contrast, Commodore UK are only expecting to sell 80-90,000 CDTVs in its first year!

When asked how much you would be prepared to pay to upgrade your Amiga, 50% of you said £300 or more and 38% said about £200, so you should expect Commodore to be aiming for about £250.

So remember: the future of CDTV depends on you, the *Amiga Format* reader. All you have to do now is decide whether or not the software is worth the extra £250.

Getting to grips with CDTV



Intro screen

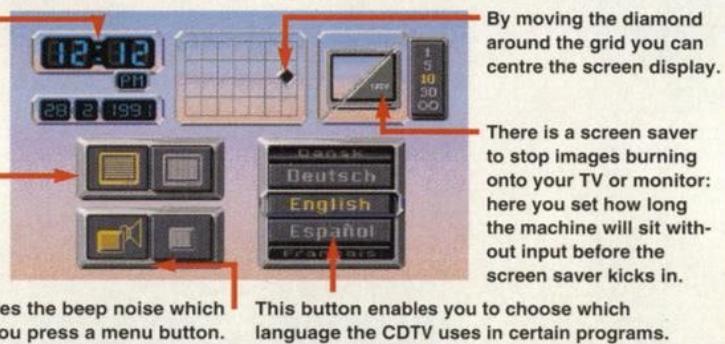
This screen is the equivalent of the 'hand holding a disk' screen of the Amiga: it appears when you switch on and means you're ready to load a CD. If you don't put a disc in and you press one of the 'select' buttons on the controller (Button A or Button B) the Preferences screen appears. If you put a music CD in the caddy, pop it in the front and press the CD/TV button on the controller, the CD Player screen will come up.

Preferences screen

Set the time and date by highlighting the appropriate part of the screen and typing it in on the number keys on the remote controller.

This button turns off the flicker fixer to improve the quality of video recordings made from the CDTV.

This button toggles the beep noise which sounds whenever you press a menu button.



This button enables you to choose which language the CDTV uses in certain programs.

CD Player Screen

The animated display shows which track is currently playing.

The time counter has four time functions: how much of the CD has been played, how much of the current track has been played, how much of the track is left to run, how much of the disc is left to run. It's easy to find out how long a CD or an individual song is.



The normal play, stop, skip CD player functions are on this bar. They are also on the remote controller.

specifying to chain stores like Dixon's that the CDTV must not be displayed too near the computers, so that nobody thinks it is one, and dealers will be obliged to carry at least 20 non-game titles, so nobody begins to think it's a fancy games console. It's a marketing scam, yes: but it could well work.

And there's a lot of other people out there who'd like to see some kind of computer sneaked into the living room, too. One example is British Telecom, who currently are obliged to deliver huge, bulky telephone directories to millions of homes. Already they produce a national phone directory on CD-ROM for businesses: imagine how pleased they'd be to deliver you a sleek little CD every year instead of a whacking great book. And now that they are charging for Directory Enquiries calls, imagine how many people would pay extra for a complete nationwide set of phone directory CDs which would still only take up a few inches of shelf space.

But this is a minor item compared to what could happen if home shopping takes off. Once a computer really does sneak into the living room, it's the ideal platform for the long-awaited home shopping revolution. A catalogue appears through the post on CD, you browse through the pictures and listen to the descriptions, the software allows you to simply click on an item to order and the order is delivered to the firm's computer via another small, black box, a modem, plugged into the phone line. It will happen: it's just a question of when and using what hardware. Will it be CDTV?

Oh... the problems!

The CDTV has appeared from nowhere, using existing technology to steal the scene in these three incredibly important areas. But just because it's there first, grabbing the glory, doesn't mean it's bound to succeed.

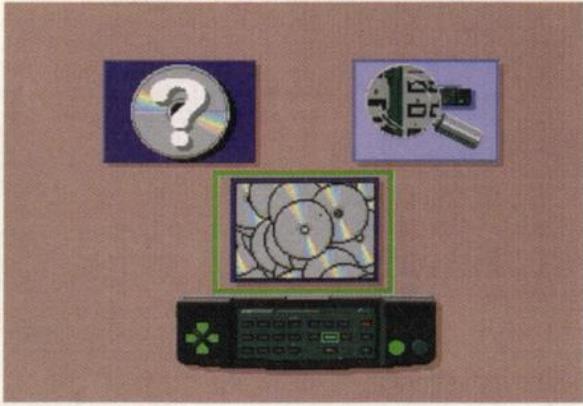
There are problems. Most of these stem from the very fact that Commodore has jumped in ahead of its potential competition and is using an existing Amiga-based technology.

If the CDTV is really going to be an interactive video machine, with interactive games produced using film techniques, then people are going to expect 'full-motion video' (FMV), pictures that move in a television style and occupy the whole screen. Currently, the CDTV can't do this. The Amiga-based system just can't load graphics data quickly enough direct from CD to display, so it is limited by what it can throw into memory at one go, which is 1Mb tops. After that, it has to pause and load again.

Commodore reckon it doesn't matter, for three reasons: one, you don't really need FMV; two, you can

The Welcome Disc

the first CD most people are likely to put in their machine is the Welcome disc. This is a multimedia tutorial narrated by an American man and woman, showing you how to use the CDTV and including a kind of catalogue of the first CDTV titles that will be on sale. Its only real flaw is that it shows you in great detail how to plug in your machine and load a disc: but you couldn't be learning that from this disc unless you'd done it already...



Talking Titles

easily do partial-screen full-motion stuff if you use good data compression and decompression techniques: three, the standard chips to make FMV possible are on the way very soon and can be incorporated into CDTV easily.

They've already demonstrated a very convincing partial-screen full-motion sample called CDXL, and say "Commodore plans to make the CDTV player compatible with the Moving Picture Expert Group (MPEG) full-screen full-motion standard, once it is established and available." Don't hold your breath. Does it matter? Well, like so many other things, we believe it will only become apparent when CDTV titles start appearing...

In the meantime, Commodore are worrying about the competition, and in particular a thing called CDI. Developed by a cartel of big-name electronics firms including Philips, Sony and Matsushita, CDI is a dedicated multimedia system. It's had millions upon millions poured into its development and it is expected to be out soon. As the battle for home multimedia players begins, people are already making comparisons with the VHS/Betamax storm that followed when videos first appeared.

Will CDI be better than CDTV? Well, to be honest, we don't yet know. CDI will have better graphics: the Amiga's 32 colours are, I'm sorry to say, beginning to look a bit dated. CDI might have FMV. But there are signs that Philips' system may not even be sold as an affordable home machine: they might sell it for use by big companies. Several people in positions to know have told me that CDI has nothing over CDTV: others say that it won't ever even appear.

The VHS/Betamax comparison is being made by a lot of people, but their conclusions are interesting for CDTV. Everyone seems to agree that Betamax was the better system, but it was VHS that won out. Why? Well, the accepted wisdom seems to be that VHS succeeded because it was available in the hire shops. You can expect to see CDTV, and the compact discs for it, available for rental very soon.

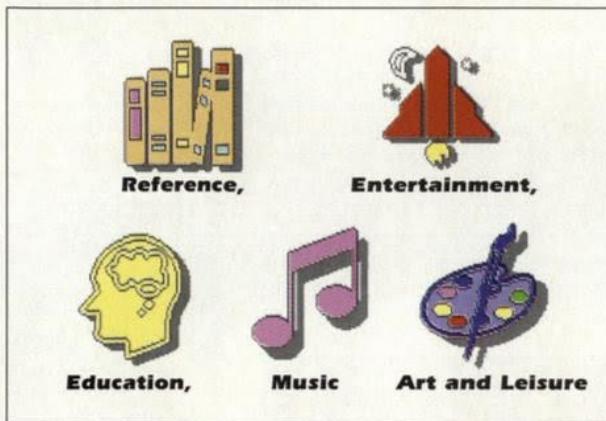
Do we care?

So, why should an Amiga owner care about the CDTV? Well, you've got two choices. One: you might want to swap your Amiga for a CDTV. Two: when the add-on CD-ROM drive appears for the Amiga, you'll be faced with a choice of whether to buy one for the asking price of about £250. That's a lot of money to justify.

The only thing that will really swing your decision will be the quality of the CDTV software, which the rest of this feature examines. Remember: it could be you, the Amiga owner, who decides the future of CDTV.

Discs for the CDTV are to be known as "titles" rather than "software", although in theory anything you play on another machine, whether it be a music CD or a videotape, qualifies as software. Many of the titles appear under the name "CDTV Publishing", which basically means Commodore themselves are publishing them.

Currently, CDTV titles are broken down into five basic categories, each of which is identified by a logo which will appear on the box or case that it comes in. The categories are:



In actual fact, no matter what category they are placed in, the majority of CDTV products so far announced

fall into one of three categories: games, music and books. So these are the categories we'll look at.

The last thing to say before we take a look in greater detail is that although the machine went on sale several weeks ago, there is currently only a handful of titles available – and none actually in the shops.

If you had bought a CDTV at the end of May, expecting to get the bundled titles *Lemmings* and *Hutchinson's Encyclopaedia* free with it, you'd be disappointed. As we go to press, these titles are not even finished: early purchasers of CDTV will find a card in the box which they must fill in and send back to get their two free titles, when they are ready.

We were hoping, and expecting, that because this feature was being written after the CDTV went on sale, we'd be able to do intensive hands-on tests of all of the first twenty or so titles. In fact, all that is ready is *Fun School 3* from Database, plus On-Line's *Psycho Killer* and *Women in Motion*. Those nice people at Digital sent us their only test copy of *Dr Wellman*. And that's yer lot.

So if you'd just bought a CDTV, what would you be able to do with it? Play the Welcome disc and music CDs. Wow. But no real CDTV titles. Best 600 quid you ever spent?

CDTV: the first home Karaoke machine?



The most understocked of the CDTV categories so far is Music. The Music section of the Welcome disc mentions music CDs, CD + Graphics discs and has one other product in: *Music Maker*. The latter is a simple music tutor which allows you to pick an instrument and play along to a sequence, with skill levels from single-key play for beginners up. Unfortunately, they have failed to make it clear what you will play along from: not the remote control pad, surely?

We've also just heard of another imminent music title called *CD Remix* from Microdeal, which sounds pretty good: it will let you loop sections of your favourite song from a music CD and play samples over it to create extra-long 'megamixes' at will. The idea sounds really quite exciting and the title is out very soon.

For music buffs, the big interest in CDTV will derive from the fact that it contains a built-in MIDI interface, though it only has In and Out ports, no Thru. As more and more record companies start putting MIDI code on ordinary music CDs, this becomes an excellent possibility. Before long, you may be able to boot up *Music-X* from an external floppy and download Madonna's own studio sequences, to tinker with at will. And it brings the idea of connecting a synth to the CDTV for your very own home Karaoke evenings that frightening step closer...

Music Titles

Music CDs: outsell vinyl records and cassettes, but 80% of British homes have a CD player already

CD+G music CDs: there aren't currently many available and what there is tends to be unimpressive

Music Maker CDTV Publishing £34.99

Play-along music tutor - play the drums along with your fave CD track

CD Remix Microdeal £29.99

Loop songs off your favourite CD and add samples to make megamixes



Books without paper

This is, at the same time, the greatest area of potential for CDTV and also possibly the most pointless exercise you could think of. Take, for example, the *World Vista Atlas*, one of the CDTV titles of which Commodore are currently most proud and which I have used.

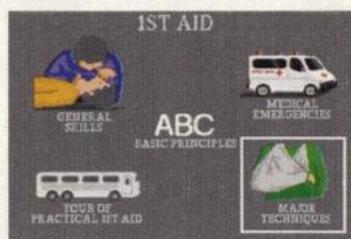
It allows you to pick an area of the world, zoom in on a detailed map and find out all about the country you're looking at: its flag, its population figures and so on. But why do people buy an atlas? Well, if you ask me it's because they like having a whacking great pretty book lying around, and they very seldom use it for anything more than looking at the colourful maps. Digitised maps on a TV screen aren't half so attractive and if you want to look up a particular town in Austria, the CDTV atlas isn't actually half as easy to use.

Digital's *Dr Wellman, Family Health Adviser* is a step closer to what the multimedia book ought to be about. The narrated soundtrack is CD audio, not a sample, it's done by a professional reader and it sounds very good. But Digital themselves admitted that they could have made the graphics more attractive and it can still be tricky trying to find out about a particular topic.

For instance, key words are highlighted and you can ask for an explanation at any time. Great, that's really handy. One up for *Dr Wellman*. But we decided to look up a particular common ailment. First you have to guess which section it might be in, then you have to try to find it amongst the different categories. And it just wasn't there.

CDTV reference books, it seems to me, will only really become useful when they are developed by a combination of two types of people. One, the people who would research and write a book in the first place; and two, the multimedia experts (and they're a growing breed) who really know the nuts and bolts of how you can present information to people so that they can find out what they want to know: truly become active rather than passive users.

There are other kinds of books on CDTV, and some of the kids' storybooks and the animated cartoon novels have great potential. The best CDTV title we've seen to date is *A Bun for Barney*, an explorative story-book for kids narrated by Tom Baker. The world it creates through the use of sound and pictures is quite delightful and it's developed by an arm on the BBC. Look out for it.



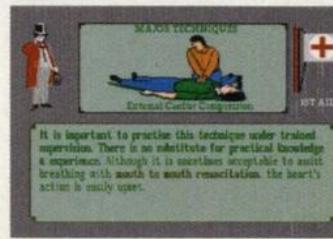
Reference Book titles

Dr Wellman	CDTV Publishing	£54.99
Friendly family health guide with narration and good approach		
World Vista Atlas	Applied Optical Media	£54.99
Digitised maps with much background info and audio tracks		
Timetable of Science and Innovation	Xiphias	£39.99
American illustrated interactive encyclopaedia		
Timetable of Business and Politics	Xiphias	£39.99
Again, American illustrated interactive encyclopaedia		
New Basic Electronic Cookbook	Xiphias	£39.99
1800 recipes from three books		
American Heritage Dictionary	Xiphias	£49.99
180,000 entries and 3,000 pictures, plus word pronouncer and speller		
Complete Works of Shakespeare	Animated Pixels	£34.99
Dumb idea perhaps justified by on-screen help with tricky words		
Illustrated Holy Bible	Animated Pixels	£34.99
Again, could be saved by a handy help system		
Gardenfax: Indoor plants	CDTV Publishing	£34.99
Not terribly interactive plant guide		
Gardenfax: Garden plants	CDTV Publishing	£34.99
Another not terribly interactive plant guide		
Gardenfax: Fruits, vegetables and herbs	CDTV Publishing	£34.99
Yet more not terribly interactive plant guide		
Gardenfax: Trees, shrubs, roses	CDTV Publishing	£34.99
And finally, an interactive plant guide		
Advanced Military Systems	Dominion	£29.99
Coffee-table book on military hardware		
Our House	Con.Txt	£34.99
American reference book on domestic appliances through the ages		
Hutchinsons Encyclopaedia	CDTV Publishing	£34.99
Bundled with CDTV, interactive illustrated book		

Dr Wellman™



Dr Wellman takes you through from a general menu of topics (above) to more detailed options screens (left) down to the basic information, presented as on-screen text with key words and narrated by a friendly voice (right).

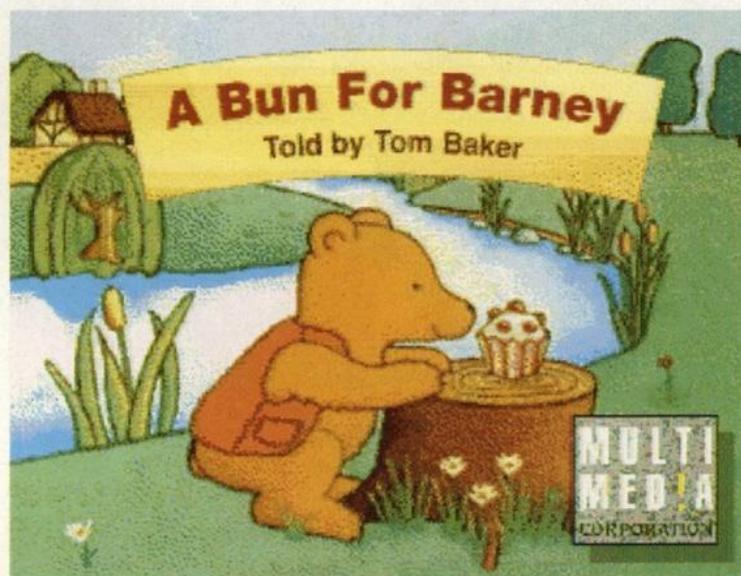


Weird Titles

Women in Motion	On-Line	£29.99
Famous Muybridge photos of nude ladies for animation use		
LTV English	Jerico	£34.99
Genuine educational product, teaches English as second language		

Kid's Book Titles

A Bun for Barney	Multimedia Corp	£34.99
Excellent interactive storybook narrated by Tom Baker		
Cinderella	Discis	£34.99
Paper Bag Princess	Discis	£34.99
Thomas' Snowsuit	Discis	£34.99
The Tale of Peter Rabbit	Discis	£39.99
Scary Poems for Rotten Kids	Discis	£39.99
Mud Puddle	Discis	£34.99
Storybooks with lovely graphics: words are spelt and explained		
Ninja High School	N/A	£16.99
Animated comic book in Japanese style		
Dinosaurs for Hire	N/A	£16.99
Animated comic book in Turtles style		





Games

Without Frontiers?



Psycho Killer from On-Line: it's a bit of a home movie, but it's the closest thing to the interactive movie yet. You click on on-screen options to guide yourself through the game.



Games titles

Xenon 2 Megablast	Mirrorsoft	£29.99
Amiga port with extra CD sound; features new 3D stereo system!		
Sim City CDTV	Maxis	£29.99
Reworked Amiga port with neat additions and enhanced CD sound		
Classic Board Games	Merit	£34.99
American board games: chess, draughts, backgammon		
Psycho Killer	On-Line	£29.99
Mystery adventure, a homemade feel but proper CDTV ideas		
Hound of the Baskervilles	On-Line	£29.99
Sherlock Holmes in reasonably classy adventure		
Defender of the Crown	CDTV Publishing	£29.99
Amiga port of dated game, don't expect too much		
Battlestorm	Titus	£29.99
Wrath of the Demon	Readysoft	£29.99
Battlechess	Interplay	£29.99
Animated chess game, Amiga port		
Falcon	Spectrum Holobyte	£44.99
Famous flight sim, Amiga port with extra disks built in		
The Case of the Cautious Condor	Tiger Media	£34.99
Vey promising adventure ported from FM Towns CD-ROM		
Snoopy: the case of the Missing Blanket	Edge	£29.99
Defunct UK software house reappears: could be iffy		
Sherlock Holmes, Consulting Detective	Icom	£44.99
Adventure: looks likely to have very US slant		
Many Roads to Murder	CDTV Publishing	£29.99
Murder, Anyone?	CDTV Publishing	£29.99
Mystery adventures in On-Line Herewith the Clues style		
Spirit of Excalibur	Virgin	£34.99
Arthurian adventure in Defender of the Crown mould		
Future Wars	Interplay	£34.99
BAT	Ubisoft	£29.99
Unreal	Ubisoft	£29.99
Pro Tennis Tour 2	Ubisoft	£29.99
Don't expect to see UbiSoft's Amiga ports too soon		
Trivial Pursuit	Domark	£29.99
Very promising, lots of graphics and sound used wisely		

Educational titles

All Dogs go to Heaven	Merit	£34.99
Very little to this colouring book: could be Amiga port		
Fun School 3	Database	£24.99
Amiga port of popular educational games package		
MyPaint	Saddleback	£29.99
Amiga port of colouring-book style kids' paint program		
Animated Colouring Book	Gold Disk	£19.99
Mind Run	CDTV Publishing	£29.99
Intellectual puzzles as self-test		
North Polar Expedition	Virgin	£29.99
The famous exploration game, developed for CD-ROM		

they tried simply running the Amiga version and found a problem. "Anything that asks for keyboard interrupts won't work on CDTV" say the Assemblies, "because there isn't a keyboard." So CDTV versions often have to be reprogrammed at some level or another.

So, what about those interactive movies? Well, the only team currently exploring this exciting area is On-Line, once known as CRL. Theirs will be the only CDTV titles in the first batch of releases that fit this description. Thanks to much foresight, they have an Amiga-based development system that allows them to knock out interactive movies with the greatest of ease.

The system, once called DUNE, now referred to as Desktop Video and used for the Amiga game *Herewith the Clues*, is incredibly simple to use. It involves an Amiga, a hard drive and an optical drive to store all that data on. All you have to do is create your graphics and sound and then put them together.

The key is that any picture can have 'buttons' defined on it, so that when you click on it something is triggered: so you can move from one scene to another, look closely at an object or whatever. It takes no real computer knowledge to create a game this way, leaving all the creative stuff to creative people: writers, artists, cameramen, musicians.

So far, On-Line's CDTV games are a little like home movies. But using the very same system, you could easily create multi-million pound productions: it's just a question of commitment. On-Line's *Psycho Killer* is frankly a bit naff, but it's the potential it demonstrates that is important.

So how long do we have to wait for interactive movies? Well, I don't reckon any of the current games except the On-Line efforts get even close: but even now, Lucasfilm are working on *The Secret of Monkey Island 2* for the CDTV. It could be the best thing to happen to the Amiga.

To buy, or not to buy?

So, should you rush out and buy a CDTV? Well, I'd hang on for several good reasons. Firstly, wait to see what the magazines think of the titles: a lot of them look a bit poor at the moment, but some could be real treasures. Secondly, wait to see what the Amiga CD-ROM drive can do for you and how it compares with the CDTV plus keyboard and disk drive: you don't want to switch if a CDTV keyboard hikes the price £200 and you still can't run your expensive creativity software. Thirdly, round about the time the Amiga CD-ROM drive appears, the next generation of CDTV software should be imminent: then you can tell if it really is the next big step in home entertainment or not...

"IS THIS THE FUTURE of home entertainment?" we asked on the cover of Issue 24, when *Amiga Format* was the only computer magazine in the UK to get its hands on a CDTV and find out what it did. The CDTV could be more important for the future of home computing than anything that happened in 1991; and it could be crucial for the Amiga.

In case you don't know what a CDTV is, we'll recap. On the outside, it's a smart, sleek, black box a bit like a video recorder. On the inside, it contains the workings of an Amiga 500 but with two major differences: instead of a keyboard there's an infra-red remote control and instead of an ordinary disk drive, there's a Compact Disc mechanism.

Apart from being able to play music CDs, like any CD player, the CDTV can also use software stored on CD. This is still just Amiga software; but the difference is the amount of it you can fit on. A normal floppy disk, for the Amiga holds 880K, a CD can store about 550 Megabytes of data. That's equivalent to 640 floppies. And remember, because CDs use digital information, they're ideal for computer use.

So what use is all this extra space? Well, for certain purposes, none at all. Arcade style games, like *Rainbow Islands*, *Robocow* or *First Samurai*, are designed very cleverly to work within the limits of RAM, the internal memory storage area of the computer, and wouldn't gain greatly by having lots of extra room.

But anything that is very dependent on graphics and text while not being too dependent on speed – and the obvious example is adventure games, like *The Secret of Monkey Island* – will easily be able to take advantage of all the extra space. With 550 Megabytes to play with, you have room for heaps more pictures, animations, text and even sampled sounds. And this opens enormous possibilities.

It would always have been possible on a computer as powerful as the Amiga to have, for example, an encyclopaedia of wildlife that when you looked up 'Aardvark' would tell you all you need to know in words, while also being able to show you an animation of the creature wandering through its natural habitat and playing a recording of the gloopy noises it makes while feeding. But you'd have run out of disk space before you ever got to Ant, never mind Badger or Camel. To do the whole lot properly you'd probably need all those 640 floppy disks; and never mind the cost, even finding the disk with the Aardvark on would be an absolute nightmare.

So CD storage has the advantage of very high capacity, which makes it possible to do things on a computer you might previously only have done in a book. But it also has the advantages of what's known as 'multimedia', which any computer guru will tell you is the Next Big Thing in computing. The essence of this is computers are better at sorting through and finding information than humble humans.

It brings all the advantages of the boring old computer database to interesting uses. So, for instance, while you could simply browse through your Animal Encyclopaedia from A to Z, you could also use it to pick out things of

interest. If you wanted to know about animals that live in Australia, or mammals that lay eggs, you could get it to pick those out.

Or if you know that a particular animal looks a bit like a horse with a big nose, but you can't remember what it's called, you could look through pictures of horse-like creatures until you find the one you want, then find out all about it. And the beauty of doing it with a computer is that a well-designed program can make it all easy, presenting information on the screen as words or as pictures, for you to find your way through just by pointing at the thing you want.

The bare bones of it may not sound entirely thrilling, but the potential for CD-based computer software is enormous. CD-ROM, as it's known (ROM means 'read only memory' and is just stuff stored on disk that you will use but not actually change) has been growing quietly for some time. You've been able to buy, for example, a whole year's worth of *Guardian* or *Times* articles on CD-ROM. Trouble is, you'd need an expensive drive and a PC to plug it into, and all you get is text.

CD is now about to take off in a big, big way. Both the CDTV from Commodore and the forthcoming CDI system from Philips represent one end of the market, aimed at non-computer users. That's why the CDTV pretends to be a video player: the idea is that people will see it as either a kind of video book, or as an 'interactive entertainment': in other words, a video you take part in rather than just sitting back and watching. They don't need to know about it being a computer.

The exciting thing for all us Amiga fans is that we'll get our slice of the action. Early in 1992, the A690 CD-ROM drive for the Amiga will go on sale, meaning we can run any CDTV software. This will not only make the Amiga the first home computer to have CD, it also means that we will have ready and waiting the largest range of CD-based software there is: the CDTV range.

And when the CD-ROM drive for the Amiga appears, we Amiga owners will not only be at the spearhead of the CD revolution with the first home computer to have CD; we could also decide its future. CD games in particular, if they're to fulfil the potential, are going to be expensive to produce. What the games publishers need to know is whether they can sell enough copies to justify the investment. The fact that you can't pirate CD games will help, but that's not the whole story.

A weird new idea like CDTV is going to take a while to catch on with the general public. So far, despite a massive ad campaign, less than 6,000 CDTVs have been bought in the UK. But with 700,000 Amiga owners out there, that's a real market: and as soon as the Amiga gets CD, the game producers will be jumping onto the bandwagon.

It's going to be expensive, at around £300 for the CD drive. But it could be worth it, to be there when it happens. When the CD drive appears we'll bring you the whole story. In the meantime if you want to know more get hold of Issue 24 from our back issues department and have a good read. See you in the future!

Here's just some examples of what CD software is like...



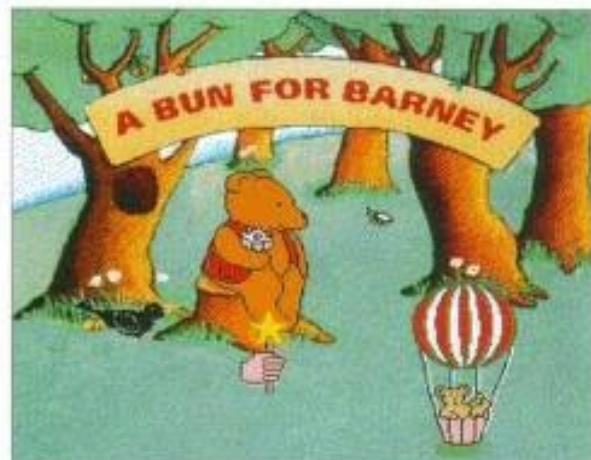
INTERACTIVE MOVIES

They're coming, but not just yet. Best example so far is On-Line's *Psycho Killer*, which uses digitised photographs and hi-fi soundtrack. The game's a bit lacking in play, but it was developed entirely on the Amiga with their desktop video system and shows how easy it could be to create some real movie-like games. Look out too for their *Hound of the Baskervilles*, a much better attempt.



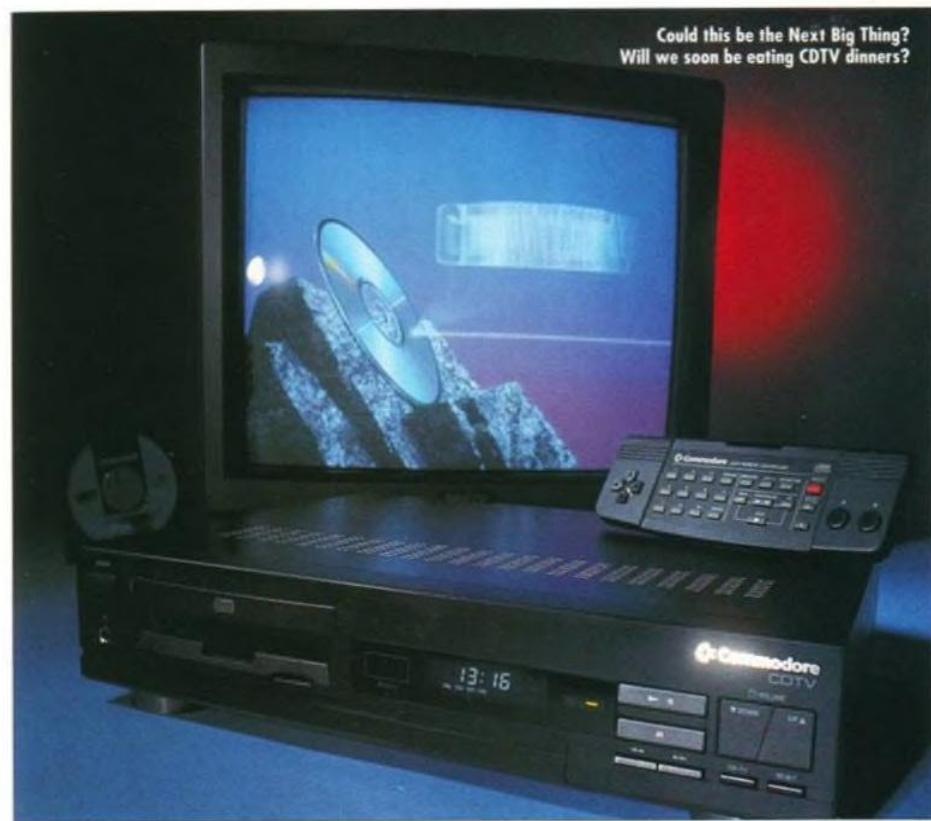
The year o

The CDTV finally went on sale in June after months of delays and speculation. It doesn't look remotely like an Amiga, but really it is: and as **Damien Noonan** explains, it's what CDTV could give back to the Amiga that makes it so exciting...



INTERACTIVE KIDS' BOOKS

A Bun for Barney is narrated by ex-Doctor Who actor Tom Baker and takes the form of a kind of point-and-click adventure for children. There's some lovely graphics and sound, with interesting surprises from the interactive element.



EDUCATION

There's plenty of colouring books and the like for kids, as well as the *Fun School 3* and *4* series, but these don't go far beyond the Amiga equivalents. More exciting is Virgin's *North Polar* expedition, a phenomenal interactive replay of a genuine exploration with heaps of educational value.

KID'S BOOKS

The Tale of Peter Rabbit is just one example of storybooks presented with nice graphics and narration: individual words can be spelt out and explained.

of the Compact Disc



Assassination
Murder, especially of a political, royal, or public person. The term derives from a sect of Muslim fanatics in the 11th and 12th centuries known as hashashin ('takers of hashish'). They were reputed either to smoke cannabis before they went out to murder, or to receive hashish as payment.

Back Fwd

REFERENCE BOOKS

The Hutchinson's *Encyclopaedia*, one of two CDs you get free with the £499 CDTV, shows how graphics and sound samples make reference more interesting. Atlases, other encyclopaedias and cookery books are other examples.



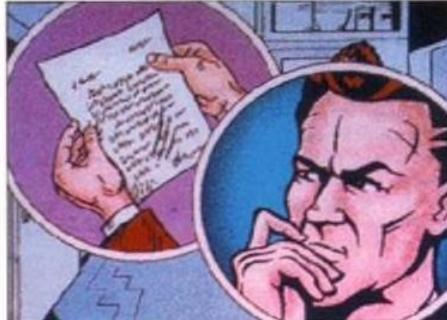
AMIGA GAMES

Ports of Amiga games will be common in the early days and won't interest Amiga owners too much. *Lemmings* comes free with the CDTV, other popular titles include *Xenon 2* and the *Falcon* flight sims.

Next Previous Animate Print

GRAPHICS

CD storage has great potential for providing large quantities of raw material, as with the CDTV collection of Eadweard Muybridge's famous stop-motion photographs of moving people, a really excellent source for animators.



CD GAMES

The Case of the Cautious Condor is the best example to date, a graphic adventure that was a huge hit on the weird Japanese FM Towns computer. *Secret of Monkey Island 2* on CDTV is one of our high hopes.

ORDINARY BOOKS

Advanced Military Systems is a graphics-led coffee-table book on military hardware. Other less convincing examples of the genre include the complete works of Shakespeare and the Bible.

AMIGA GAMES PLUS

Sim City for the CDTV is a good example: it's basically the game we had on the Amiga, but reworked with some new ideas. It also features what will become common on CD games: proper hi-fi sound, recorded in a studio, playing in the background.

KARAOKE

The CDTV is already being sold as the complete Karaoke machine. There's a whole collection of discs with song tracks on and the words are presented on screen for you to follow.



MUSIC

CDTV can play audio and CD+Graphics discs. There's the potential with stuff like CD-Remix, allowing you to loop sections of CD tracks for megamixes!

It's here, you can buy it, and it really works! The A570 CD-ROM turns your Amiga into a CDTV, and then some. **Neil Jackson** examines Commodore's new box of tricks.

A570 CD Interface

CD-ROM drive ■ £349 ■ Commodore

AT LONG LAST, the widget we've all been waiting for has arrived! The A570 CD-ROM drive is a plug-in unit which fits into the Amiga 500's left-hand expansion slot. It comes with its own power supply (exactly the same as the one you use with an A500), an audio cable for connecting to your A500's audio outputs, a disc caddy for holding CDs while they're in the drive, and a reasonably well put together manual.

Commodore have obviously taken care to make sure that the case makes some attempt to follow the A500's styling, but because the CD drive inside is fairly blocky, it can't really match it. The front panel contains two LEDs, one for the power supply and one which shows accesses being made to the CD (just like your A500's drive light).

The only problem is their location: they're just below the drive-slot, under a protruding edge which obscures the LEDs when you're sat at your normal typing position. To see them, you need to lean back a fair distance in your seat, or type with your arms outstretched. It's a stupid oversight, but it doesn't really matter – you can't damage a CD by ejecting it mid-access, like you can with a floppy.

CDTV DISCS

The A570 CD Interface runs CDTV (which is Commodore's own Dynamic Total Vision system) applications. Running CDTV programs is the A570's prime function, so you would expect this to be easy, and it is!

You simply put the CDTV disc into a caddy (a disc holder which is supplied with the A570) and slide that into the A570. After a moment's whirring, the CDTV program is up and running; it's as if your Amiga was a CDTV player. The only major difference is the lack of a CDTV infra-red controller interface in the drive. However, with a little practice on your part, the keyboard and mouse can usually be made to mimic the controller.

The movement of the mouse usually corresponds to the CDTV's joypad movement (though this is often scaled up and very fast), and the mouse left and right buttons equal button A and button B on the CDTV.

With a few of the earliest CDTV discs (which were designed purely for the original CDTV player only), you may experience problems. Some key-combinations may be a bit awkward at first, or the arrow keys won't work properly, but there are ways around all of these problems.

Commodore's A570 CD-ROM drive is here at last. The price looks right, the manual is readable and reasonable, and there's loads of software due to appear soon. Can anything go wrong?



On the same panel is the headphone socket and switch which enables you to listen to the CD in private. It uses the quarter-inch jack standard, like the ones found on household hi-fi equipment. Personal stereo headphones will need a special 3.5mm to quarter-inch adaptor.

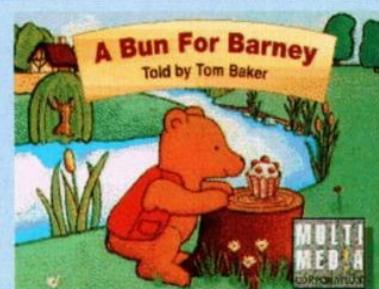
The switch controls two functions – and this is bound to lead to some confusion in the first few uses if you're not paying attention.

The main function is to control the headphone volume level, but if you turn the knob all the way down, it goes click and turns off the A570 unit itself. This function is included to stop you from having to unplug the A570 whenever you want to run your Amiga in normal (non-Compact Disc, CD-ROM) mode. The really dumb thing here is that there is no (obvious at least) indication on the switch. Nine times out



Standard CDTV discs can be yours (and your Amiga's) but watch out for those made for early versions of CDTV.

Often, the Amiga's perennial drive-clicking problem can make things look worse than they actually are: the drive-click somehow causes the mouse pointer to move very slightly (you may have noticed this before). This in turn is interpreted by the CDTV application as a movement of the controller



Dear old Barney, early CDTV software that came from the US is rapidly being complemented with spiffy new stuff.

joypad, causing the screen to change before you're ready. This problem, once spotted, is easily cured: pop a disk in your Amiga's disk drive(s) and the drive-click (and mouse-movement) stops.

Many newer CDTV applications detect the fact that they're running on A570s and



of ten, you'll probably never need to turn the volume down to zero anyway, so it doesn't really matter – it's just that Commodore seem to have set themselves up for a Technical-Support headache – some people are bound to complain that their A570s are not working when in reality they're just not switched on!

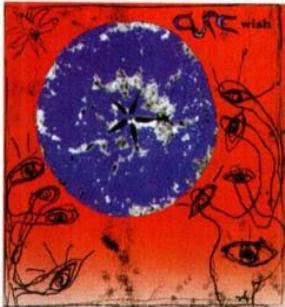
At the rear of the A570 there's a block of four RCA phono sockets where the audio leads

The
CDPD
Public Domain Collection for CDTV
Including Fred Fish disks 1 to 660 plus much more...
Almathera SYSTEMS LTD

And this is what you get free with the A570. Over 600 Mb of Amiga Public Domain software for you.

provide simple keyboard alternatives which are reliable and quick – presumably future releases will be able to positively exploit the fact that they're running on a real Amiga by providing more options than you would find on a CDTV.

AUDIO CDs



list of tracks, show the time elapsed, time left to play, and so on. There's really nothing missing – the CD-ROM functions just like the real thing. You don't have to put up with TV-quality sound though: you can plug the stereo outputs directly into a household amplifier and have stereo CD-quality sound pouring out of your normal record-player speakers.

CDS WITH GRAPHICS

The A570 plays CD+Gs (the new type of CDs which have a graphics track: you can buy these from record stores too). You play these discs like normal audio CDs, but you have the option to turn on the graphics track and watch it while the music plays. The graphics aren't usually stunning, but often they display the lyrics of the song you're listening to. This can be a giggle, as any closet air-guitarist will tell you. Occasionally you'll see the odd digitised photo of an artiste, or a scenic backdrop here and there – but it's nowhere near the same standard as music videos – well not quite yet.

CDS WITH MIDI



The A570 plays CD+MIDs. These are similar to CD+Gs but instead of a graphics track they have an MIDI data track. This data can be sent to a MIDI keyboard (or some other MIDI sound-source) and the music is played through it, in

synch with the CD audio track. Nice, if you've got some MIDI equipment and a MIDI adaptor for your Amiga already.

CD-ROM DISCS

The A570 can access ISO (International Standards Organisation) -9660 CD-ROM discs. One of the great buzzwords of the moment, CD-ROM is a computer industry standard for data storage on CDs. That's it – it doesn't necessarily mean that you'll be able to use all CD-ROM-based data (which could be pictures, sounds, programs, or anything really) on your Amiga. Currently much of the data stored in CD-ROM format is for the IBM PC, but there are a few things currently available for the Amiga. For example The CDPD collection contains more than 600 Mb of Public Domain software. This data can be copied, or run from the A570 using Workbench or Shell, as if it was on floppy. Even CD-ROMs designed for the PC can be interesting to play with. You can use the Shell to examine the CD's directory and often you'll find files stored as ASCII or DPaint ILBM or IFF format. You can glean heaps of information from your average PC CD-ROM – you just won't be able to run the handler program that manages the data and helps you to search through it.

plug in, a power supply socket and a curious blanking-plate held down by a single screw. The audio leads are simple to set up – you just route your A500 output to the A570 audio inputs using the lead supplied, and then plug your normal audio leads into the A570 outputs. The A570 audio outputs are then mixed on to the Amiga's output before being sent to the TV or monitor speaker. Under the curious blanking-plate is a 30-pin slot intended for use with hard drives (though there's no way you can use the A570 with a GVP IMPACT drive because the A570 has no Amiga-style expansion slot itself).

Inside the A570, there's a second 40-pin connector where you can fit up to 2Mb of fast RAM. This is currently of little use because most CDTV programs expect no fast RAM at all – but it may become useful if future CDTV titles are written exploit it. Fast RAM aside, the A570 requires a full megabyte of chip RAM to be inside your Amiga. The original CDTV came with this amount, so most CDTV programs assume that this amount is always fitted. However, chip RAM trapdoor expansions are widespread and reasonably cheap – and A500 Plus Amigas come with a full megabyte of chip RAM as standard.

It's easy to look at the A570 and think 'well, there's really not much call for it at the moment – but it's a nice idea'. While this is partially true (it is a nice idea), the A570 has a lot to offer, and hopefully very soon. Now that it's in production, CDTV publishers will incorporate the A570's features and exploit its different input modes.

Soon, we should see a new age of far more spectacular CDTV software, and that's when the fun will begin. For now, there are lots of uses you can already put your A570 to, but the best is still to come. White elephant? We don't think so: CDTV already has a head start over Philips' CD-I, and it's just beginning to look like a capable format. For £350, the A570 is a neat (and not terribly expensive) method by which to increase the enjoyment you get from your Amiga. And, if people move toward it now, then software houses will be forced to develop even more programs for it.

Commodore A570 CD Interface

SPEED

Fast loading times as you'd expect, but the quick and easy installation is a nice bonus.

DOCUMENTATION

The manual is surprisingly clear and easy to follow. It explains everything you need to know.

ACCESSIBILITY

It couldn't be much simpler – most of the time it's just plug-in and go.

FEATURES

Very versatile, capable of playing a number of different CD types. The casing design is poor.

VALUE

At £349, including the CD-PD disc, it's not bad. However, expect price cuts before too long.

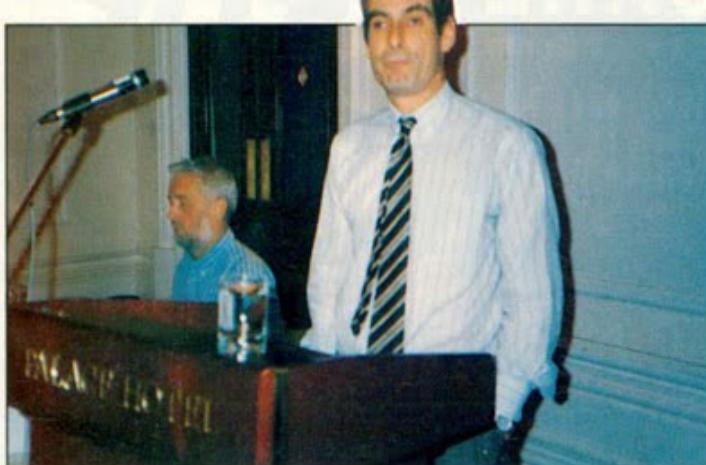


92%

test drive

The

CDTV Sce



Jim Mackonochie - General Manager CDTV Europe

IT'S THE SECOND ANNIVERSARY OF THE LAUNCH OF THE AMIGA CDTV IN THE UK

We asked Jim Mackonochie, Commodore's General Manager, CDTV Development, Europe, to tell AUI his birthday message.

As we approach the second anniversary of the launch of CDTV it is appropriate to reflect on the past and look forward to the future.

Commodore launched CDTV because of a strong belief that the future of entertainment computing is based on systems that include compact disc technology, a view that is now shared by all hardware manufacturers.

The results have been very encouraging, but there have been some surprises. We underestimated the number of CDTV owners who wanted to use their systems as Amiga computers. We also underestimated the demand from Amiga owners who wanted to upgrade to CD technology. Their reasons appear to be partly in order to access the multimedia CDTV titles, but also to get access to the vast amount of PD software that is becoming available on CD. Currently there are three PD discs available, totalling

1.5 gigabytes of Amiga software, a veritable treasure trove for an Amiga owner.

For the future, the indications are very encouraging. This is best demonstrated by the number of CDTV titles that are under development, and the weekly increase in developers registering to develop for Amiga CD. It should be appreciated that it takes between one to two years to develop an outstanding title. This year, CDTV owners will see the results of all that work by the developers."

Carl Sassenrath has been one of the most influential figures in the development of CDTV. He sent a message from the U.S.A. to AUI readers:

Carl Sassenrath, often called "the father of the CDTV" he wrote the CDTV device code for the machine. Carl is now President of American Multimedia Incorporated.

"CDTV multimedia is the future. I firmly believe it. No other

technology offers so much for so little cost. What else can potentially provide such a wide and complete range of applications and content?

Don't be fooled into judging this technology by the first round of applications. CDTV is a new medium of expression, and new media require enormous energy to introduce. Look back to the early days of motion pictures or television for a good lesson. Images were small and black and white, there was little or no sound, and the production quality was very poor. We've come a long way!

It takes time for developers to realize that they can shed the chains that bind them in the floppy disk world. So much more is possible with CD, and developers need to open their minds. These discs hold 680 Megabytes!!! A single CD delivers tens of thousands of images and tens of hours of audio, all with many times the speed and for the same price as a floppy! Then to top it off, applications can now distribute good quality motion video. A whole new world of games, education, and productivity is just

getting started.

So far, you've just seen the spark. CDTV was the first, and now there are half a dozen other "multimedia" companies jumping into the action with their own players. But, how many of those other players can offer full Amiga compatibility? None.

CDTV continues to lead the way, and I know that Commodore believes strongly in this product. As the creators of the world's most successful home computer, they understand what CDTV offers the home consumer. I fully expect

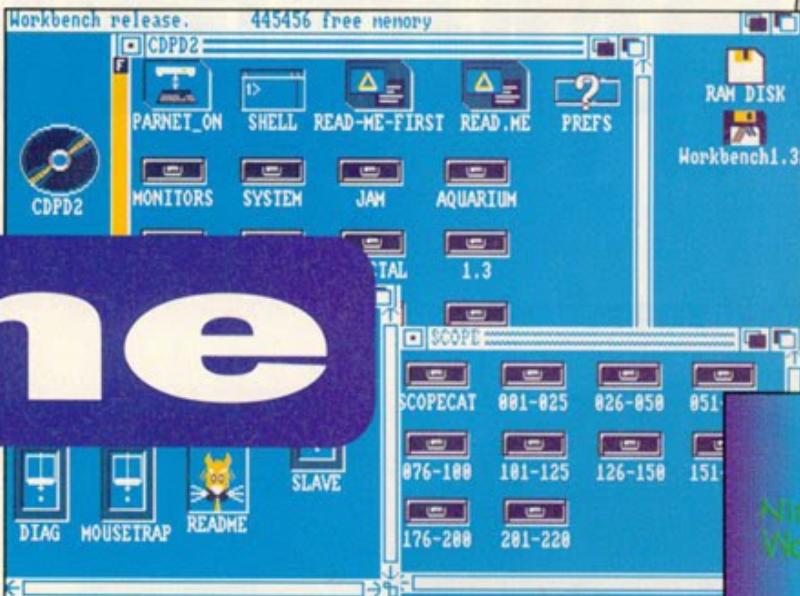
BRIDGE



There are five titles in this series from Will Bridge of Paris:

Introduction to Bidding
Intermediate
Advanced
Competition
Advanced Competition

C·D·P·D2



Commodore to continue to put their entire energy behind the product. To me, the future of CDTV seems very bright."

external cd-rom drive

Why not buy a standard CDTV as an external CD ROM drive for your existing Amiga? It is cheaper than some CD ROM drives on the market. It is simple to set up - you link it to your Amiga with ParNet. The advantages? Well, just think of all the PD software, demos and Clipart which is available on CD ROM. It would fill literally

thousands of floppy disks. You can even access PC and Mac info using CrossDos or an emulator. What is more you then have a CDTV and will be able to explore all the CDTV titles - more than a hundred of them.

ParNet cables are available from Almathera Systems (081 683 6418) and Brian Fowler Computing (0363 775400). The cost? From Brian Fowler Computing a two metre quality cable (properly shielded to avoid data transmission errors) is 16 including VAT and delivery. A five metre cable is 18. If required, easy-to-use installation software on disk costs 5. A ParNet program is also on the CDPD 2 disc from Almathera Systems.

Being a complete novice at Bridge, it is fortunate that I was asked to review Introduction to Bidding, which is geared to ten year olds and over. Advanced Competition is "world champion" level. The discs are approved by the European Bridge League. This is an ideal way to learn to play Bridge in the privacy of your own home, rather than risk embarrassment and confusion at the hands of experts. Many a marriage has come to grief through arguments begun at the Bridge table!

On Introduction to Bidding there are nine lessons. When you have completed the lessons then you are ready to try the two games. Each disc can be used indefinitely as the program provides a limitless number of different hands.

The games come in two forms, Marathon and Labyrinth. Marathon is an open-ended game in which each correct bid is worth five points. Your score is given as a percentage - if you score 80% or more then try the next level. In Labyrinth there are ten gates which separate you from the exit. A correct answer opens a gate, a wrong answer inserts another gate - collect twenty gates and you are lost.

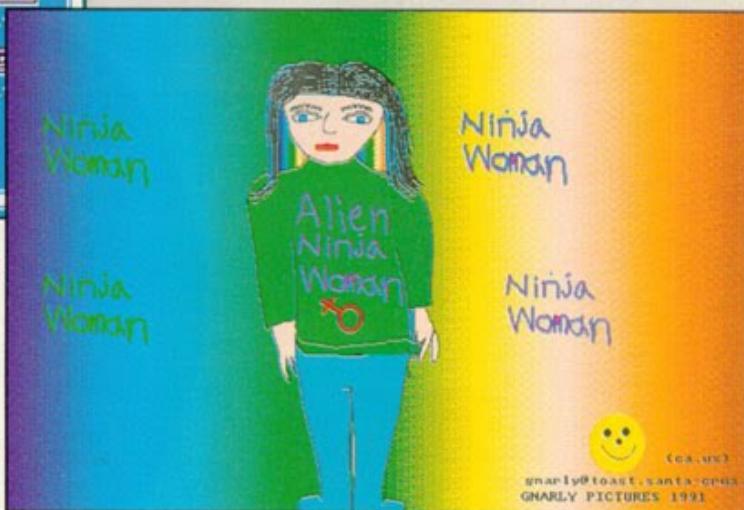
The cards are dealt on a green baize background and from lesson one you are gently led through the very complicated art of bidding. The principles of each lesson are repeated several times. By lesson three I was muttering to myself about five card majors, four card minors and two no trumps. Counting up the high card points

Another CD crammed with lots of Public Domain goodies from Almathera Systems. This one contains, among other things, the Fred Fish disks from 651 to 760, JAM disks 1 to 10, Scope disks 1 to 220, and 150MB of PD from the NASA AB-20 archive. The disc was compiled by Max Guidi.

Some knowledge of the Amiga workbench is required to find your way around and

Shareware programs are included and if you use them then payment should be sent to the authors.

For CDPD 2 Max has designed a new FishRod which makes copying the Fish and JAM disks to floppy drives much easier. It also includes a Disk Format option. This FishRod can be installed to your RAM disk for use with CDPD 1. A new FishBowl also has additional options and under a windows menu are Fishes 1 to 760, listing the programs on each one.



to make use of the programs, not all of which will run on a CDTV. There is a choice of WB 1.3 or 2.04.

Verdict: Good reason for buying a CDTV or A570 90%



does wonders for your mental arithmetic and at least you can have a good argument with the computer without actually coming to blows! When your bid is right there is cheering. Get it wrong and you are greeted by farm noises and a helpful word or two pointing out the error of your ways and suggesting the correct bid.

As a beginner I would have

appreciated a help screen with a glossary of bridge terms and a reminder of the principles of bidding. As it was I had a thoroughly enjoyable evening and lots of notes on scraps of paper!

Verdict: Stimulating - more fun than many games 81%

INTRODUCTION TO BIDDING ("PRACTICE")

Continued on page 96.

APRIL 1993 aui 93

test drive

The CDTV Scene



Jolyon Ralph of Almathera.

spotlight on almathera

This month the spotlight turns on Almathera Systems, who managed to get three titles in my latest Amiga CD Top Ten. Almathera Systems; formed in June 1990, is based at Challenge House, Mitcham Road, Croydon, just seven miles from ICPUG's HQ. They're one of the leading Amiga CD specialists in the UK. Not only have they successfully produced and marketed their own CDTV titles, but they also sell CDTV hardware and software.

The company's Managing

Director, Paul Ralph, also happens to be chairman of the European Multimedia Research Group. The Company's Secretary is his wife Bea, an accountant (She says she is secretary, general dogsbody, and chief chaser - and she also makes an excellent cup of coffee.) Jolyon Ralph is Technical Director and ICPUG'S Amiga technical advisor. Massimiliano Guidi (Max to his friends) is the Multimedia Programmer and mainly responsible for the production of the CDPD titles. Last, but not least, Seb, (Sebastian Lee-Delisle) is Head of Multimedia Design. The company also employ

freelance graphic artists and others from time to time.

A visit to their offices is an interesting experience. It's a real hive of activity. Couriers come and go, the phone never stops ringing, deadlines become more and more urgent. There is a cry of "The crier is coming in an hour and this must be finished in time." But despite the apparent chaos the work gets done. The company pride themselves on dispatching all orders the same day if the item is in stock and, what is more, they have a file of letters from satisfied customers thanking them for their friendly, helpful service.

Parnet (with the ability to create floppy disks and install Parnet). This disc will include the George Thompson Services PD catalogue as they supply the fresh Fish!

Jolyon is working on Video creator and is hoping for a release date of early 1993. This disc will allow users to create their own pop videos with graphics and anims to run with audio CDs. It is an exciting idea and yet a further use for the Amiga CDTV. Another title for early 1993 is Senny and Foo. This is a children's adventure, introducing two lizards - Senny and Foo, and is based on a poem written by Bea Ralph. As well as a delightful story plus puzzles and games, it is also aimed at helping seven to twelve year olds to understand the meter in poetry.

Planned for mid-1993, Treasure Quest is one of Seb's projects. It is dungeons and dragons type game with monsters, wizards and a randomly generated magical maze. One of Paul's ideas is a series of discs based on the RAF Museum at Hendon, where they have a massive film archive - one of largest in Europe. This title will require many video shots and Jolyon is currently experimenting on producing full screen video without using the expensive

MPEG chipset. What I saw on my visit to Almathera looked very promising indeed.

As you would expect with such experienced programmers, all of Almathera's titles run on Workbench 1.3, 2.0 and 3.0, the CDTV A570 and the Toshiba CD ROM drive (plus software) which is marketed by Almathera for use with the Amiga 1500/2000/3000.

Almathera join the EC

Early in December, Managing Director, Paul Ralph, announced that Almathera are to open an office in Brussels. The Belgian branch will deal with the promotion and sale of Almathera products throughout the continent of Europe. There will be an aggressive advertising campaign in continental magazines, following the success of advertisements in Italy. Paul said "This is a great step forward for Almathera and will ensure the success of our products throughout Europe".

For further information contact: Almathera Systems Ltd., Challenge House, 616 Mitcham Road, Croydon, CR9 3AU. Tel 081 683 6418

almathera titles

Already released from Almathera are CDTV titles Fractal Universe, CDPN (bundled with the A570), the Demo Collection (reviewed this month) and, hot off the press, coming soon are Video Creator, Senny and Foo, Treasure Quest, and a series of discs covering the RAF Museum at Hendon.

CDP 2 contains all the latest Fred Fish disks from 660 upwards, Scope disks 1-220 plus a Scope Aquarium, ten disks from JAM, the entire NASA AB20 archive, and

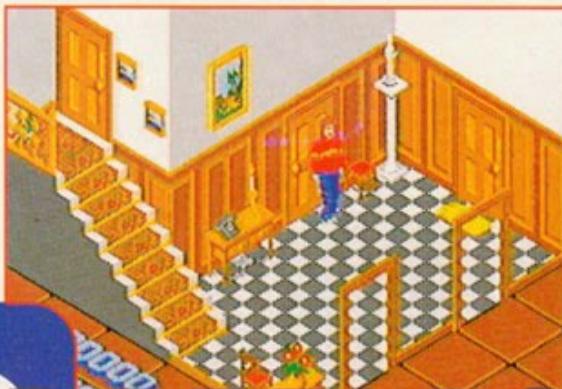
Workbench releases									
624570 Free memory									
CDP		MONITORS		SYSTEM		MODULES		AQUARIUM	
CDP		UTILITIES		FRACTAL		1.3		PREZ	
881-825	826-859	851-875	876-1000	181-125	126-159	151-175	176-200		
281-225	226-258	251-275	276-298	381-325	326-358	351-375	376-400		
481-425	426-458	451-475	476-500	581-525	526-558	551-575	576-600		
581-625	626-658	651-688							

Almathera CDPD

REVIEWS

american vista

Packed with facts, this is a good reference disc for students and potential visitors to the United States. There are superb photographs, and many maps. The maps cover



raffles

Raffles is from the same software house which produced Snoopy (Edge Interactive) and the game play is very similar. In Snoopy you were seeking Linus' missing blanket. This time you take the part of Raffles, the renowned burglar. You have broken into Lady Brooker's mansion and she had locked you in, demanding that you find the jewels which her late husband hid in the house. You can explore all the rooms in the house, move the furniture

around and examine things. The obstacles are the outsize mice and birds, plants and flames, which are all fatal. It is not very inspiring, however the younger members of the family may enjoy the search for the missing jewels. The title is too highly priced and not good value for money.

VERDICT

Entertaining for the children. **36%**

cities, states, and resources such as minerals, crops etc. Some of the city maps are detailed. For instance those for Dallas and Houston show road names but others, such as those for Orlando and San Antonio, were disappointing.

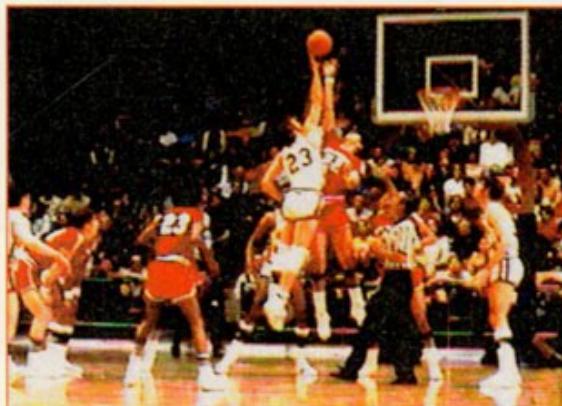
It is easy to find your way around the disc. From the main menu of States, US Bookshelf, Topics and Maps you just click on the button and find your way down the tree to the facts or picture you need.

There is no sound, apart from samples of folk music and dialects from various areas, and also speeches of the more recent Presidents. (No, George Washington is not among them!)

There are pages of information on history, politics, travel, climate, etc. Some of the facts are fascinating. Did you know, for instance, that the word Texas is derived from the Tejas, the Spanish pronunciation of the Caddo Indian word, Tayshas, meaning friend? No wonder they call Texas the Friendship State.

VERDICT

Useful for students or travellers. **66%**



ultimate basketball

This title may have only limited appeal in the UK. It has been classified as Education and as such might have a place in schools where Basketball is played. If you want to learn the principles of the game and have some fun, then this disc is for you. Watch the demo and then play the game. There are realistic sound effects and even cheerleaders at half time. You can join in the action, or coach from the sidelines.

A panel at the bottom of

the screen shows the score, the players and the time. I

DEMO COLLECTION

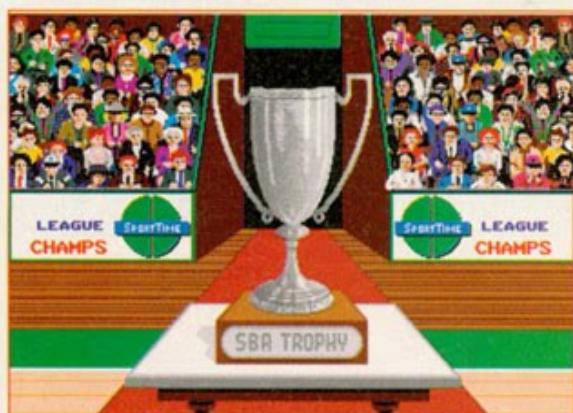
The Demo Collection is another outstanding bargain from Almathera and is included in my latest Top Ten titles. On start-up you make your choice – either load Workbench and access the files from the CD, or load the music demo "Amazing Tunes CDTV", where you can select and play over 1000 music modules – fifty hours of music. If you choose the music demo you get a silhouette of a girl dancing against a background of colour-cycling fractals, under which is the selection panel. Click on Text and the full instructions scroll across the bottom of the screen, along with a fun step by step account of how Jolyon programmed the disc.

If you enter the Workbench you find a standard Amiga screen packed with drawers full of goodies. In each drawer are more sub-directories. In the Protracker drawer are 4000 samples for you to use to compose your own tunes. You decide on the instruments and, if needed, you can fine tune them too. There are instruments and, if needed, you can fine tune them too. There are drawers with fonts, utilities and 200 demos of commercial software, complete with a demo copier. There is a vast library of Clip-art (32MB), just right for the PageStream fans.

Note: Some of the PD requires more than the 800k accessible on the CDTV, or does not run under WB1.3.

VERDICT

Another outstanding bargain. **96%**



must be honest, not being a basketball fan, I found the game play a bit puzzling!

Note: This disc does not run on the A570.

VERDICT

Do you enjoy Basketball? **41%**

TITLES REVIEWED

AMERICAN VISTA

Applied Optical Media

DEMO COLLECTION

Almathera

RAFFLES

Edge Interactive

ULTIMATE BASKETBALL

Context

Reference

RRP £54.99

Arts & Leisure

RRP £19.99

Entertainment

RRP £29.99

Education

RRP £29.99



SIGHTS ON CD

At the recent Consumer Electronics Show, roving and ranting reporter Paul Rigby grabbed a hold of two companies developing products for compact disc and heard their views on Commodore's delayed CDTV

While software companies are looking towards the CD as a future medium with an immense amount of excitement, they are also realistic as to the many drawbacks involved. So what are the pros and cons of CD? What of the CDTV? Is it a worthwhile system? What are the facts that lie behind the hype?

Interplay, designers of the *Bard's Tale* series, and Lucasfilm, creators of the latest form of interactive adventure, were all too eager to give RAZE readers their views and warn them not to expect too much. Interplay were the first to pipe up with their incisive comments: "It's too dear. Commodore need to lower the price point." Interplay stated that the \$1,000/£799 price-point is the area where adults purchase major pieces of equipment for the home. Even a high quality video is nowhere near as expensive. Interplay counter that a \$100/£100 price-point would be the trigger to mass-market CD. But that won't be for some time yet.

Lucasfilm, too, were rather sceptical, not about the price but about the tech spec. "I think they [Commodore] are the first people to have put the machine in the right place. Putting it next to the VCR and the TV set is exactly the right thing to do. All of these people who are trying to push computer interfaces onto this thing are putting it in the wrong place... It [the CD] is too slow,

it is too small, it is too fragile and it is still too expensive. It would be fairly trivial, technologically speaking, to make something considerably bigger, faster and reliable. That doesn't seem likely to happen because everybody is stuck with this CD standard."

Lucasfilm went on to justify their sweeping statement of CD being 'fragile': "When they [CD manufacturers] started selling the audio disk they gave you the impression that you could fry an egg on it and beat it with a wire brush, polish it up and it'd be as good as new. It turns out that they're not. The area concealment on CD audio is particularly good. They do a good job of hiding

data errors. When you are doing computer data, there is no place to hide. They're doing a lot of interleaving and the coding is very good. But the fact is, if you miss-handle it and give it to a kid to play with, the chances are you'll find unrecoverable data errors."

It is because of this fragility that computer CD manufacturers, on the PC and the Macintosh, have begun to introduce CD 'caddies' - used to carry the disks around. Apple have a cartridge that you use to carry the CD which also allows you to insert it into the machine. Commodore are in the middle of producing something similar.

"The CD standard should have said 'and all data disks will be in this carrier and all drives will accept it'. But Phillips didn't do that. So every drive maker is at liberty to make any kind of drive enclosure or none at all." As you can imagine, unless the

LUCASFILM ON CRUSADE

Lucasfilm have one of the best chances of making a significant mark in the new world of the CD. The mere fact that they have one of the most advanced film production units in the world, the same team that has produced *Star Wars*, *Indiana Jones*, *Willow* et al, must count for something.

Industrial Light & Magic have provided the special effects and Sprocket the wonderful sound management techniques for these movies. We saw Sprocket involved with the excellent audio tape/CD included in the recent *Loom* adventure release. If Lucasfilm's computer and film arms held hands we could be looking at the greatest film/game in history - well, it would sure be pretty good.

To get their compact disk R&D department up to full running speed Lucasfilm have been dabbling in a

number of CD conversions of established games. I asked Lucasfilm what they were and how they have been enhanced. "We have a CD-ROM version of *Indiana Jones and the Last Crusade* for the FM Towns. We are also doing *Zak McKracken and the Alien Mindbenders* and *Loom* for that machine. They differ in a number of ways from the standard computer version. The use of colour is much richer. It is 8-bit colour (256 colours) instead of 4-bit colour (16 colours). Since we have the extra data, the sound effects are a lot better. We are also introducing soundtracks."

■ Lucasfilm have a bevy of games just waiting to be converted to compact disk. Here's *Indiana Jones and the Last Crusade* on the FM Towns.



■ Despite hopes of its release this year, Commodore have delayed the launch of their CDTV system till mid-1991.



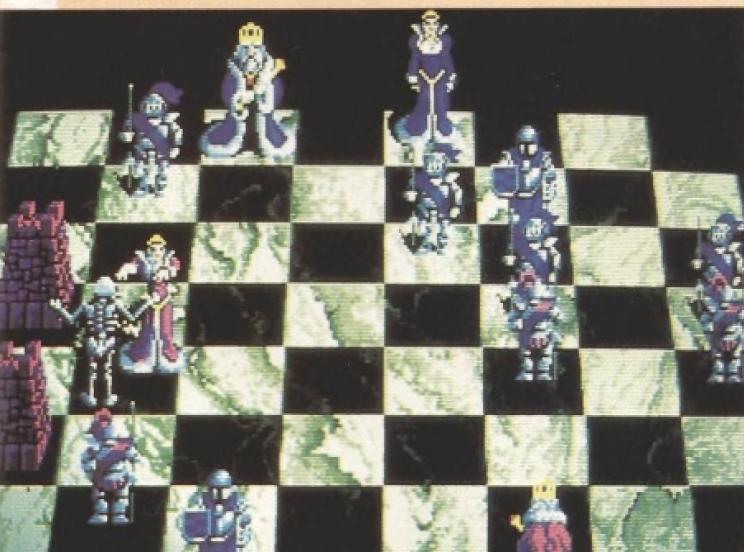
CHESS WARS ON CD

I was fortunate to chat to Brian Fargo, the man behind Interplay's *Battle Chess*, at the recent CES. We sat in the Electronic Arts booth, or was it a telephone box? There was that little old lady knocking on the door saying she'd been waiting for ages and were we going to be long? Hmm... Anyway, in between telephone rings I offered Brian a toasted peanut and asked him about *Battle Chess* on CD. "It'll appear on IBM PC compact disk in VGA only, 256-colour mode. Each of the chess piece animations will take 2Mb of code."

Two megabytes for each animation! But that's not all. There's also a very interesting tutorial mode. This sequence will allow each chess piece to wander onto the screen and introduce itself. It then explains what moves it's allowed to

make, each with digitised voice saying things like, 'Hi! I'm the King!'. Afterwards, the Queen strolls onscreen declaring that, 'I am the Queen... and I rule this board!' and so it goes on.

Other features include changing background music. The actual changes depend on how you are faring. For example, if you are playing well, the music will be light, happy and optimistic. The worse your situation the more dour the music becomes till eventually you will receive a rendition similar to the death march! Although this version is destined to make its debut on the PC CD-ROM, Fargo stated his wish to produce it for Commodore's CDTV, although the resolution would be lowered and the colours reduced from 256 to 32.



software producer knows specifically what drive is going to be playing his product he can't package the caddy as part of his disk so the disk is at risk of being damaged.

ALIVE AND KICKING!

It is a little recognised fact that Commodore's CDTV does not incorporate Full Motion Video (FMV). FMV allows you to have an all-singing, all-dancing multi-media machine with smooth animation of 'live' film. I asked both companies whether this would be a distinct disadvantage, or would the particular games designed for the CDTV (that incorporated more interaction instead of the user just lying back and watching the action) make up

for this deficiency? "It is a bad thing," commented Brian Fargo (of Interplay). "My wife doesn't like the type of games I design. They don't appeal to her. FMV would appeal. She doesn't get too excited by computer graphics but she does get excited by TV-quality pictures."

"Given the type of audiences we're delivering this stuff to", said Lucasfilm, "I would imagine mom will look at this and wonder why it isn't like her television show. Once you start giving people that expectation you have to deliver on it, otherwise the buyer becomes disappointed."

Although both companies did recognise that if the program was of a particular design, people may not notice that it isn't video. It is those

COMPACT STORIES

- Anyone remember laserdiscs? *Dragon's Lair* brought the medium to the arcades, but faded due to the units being unreliable. Lucasfilm, however, have an educational project on laserdisc they have had in use for some time. Developed with the aid of Apple computers, the project is called GTV and is a US history program used in colleges.

- Psygnosis are planning to convert several of their major hits to CDTV, including *Shadow of the Beast II* reviewed last month. Expect the enhancements to be in the audio visual departments.

- Sony have managed to squeeze 80 minutes of audio data on a three-inch CD. Currently three-inch CDs hold around 25 minutes of audio. The breakthrough has been possible by using a narrower laser beam to read the pits. Naturally the pits have to be written closer together in the first place. Again this is achieved with a narrower-than-normal write laser. Unfortunately the system is not compatible with existing playback equipment.

- Imagine saving your holiday photos on read/write CD and viewing the results on a TV. The Photo CD, compatible with the Philips CD-I, from Eastman Kodak company makes this dream possible. The camera will use gold coloured read/write CDs for capturing your snaps. Read about it now, see it in 1992.

- FM Towns owners will be pleased to know of a wealth of new titles recently introduced: *Galaxy Force II*, *TDF* (Terrestrial Defence Force), *Ultima Trilogy*, *Indiana Jones and the Last Crusade* (graphic adventure), *Manhole*, *Eight Lakes Golf Course*, *Bubble Bobble*, *Dragon Slayer*, *Final Blow*, *Operation Wolf*, *Populous*, *Reinforcer*.

- It's been a long wait, but at last the cute and colourful follow up to *Bubble Bobble*, *Rainbow Islands*, is out on CD-ROM for the PC Engine. The cartridge version has been out for around three months – although good, it doesn't come close to the CD-ROM version which boasts coin-op graphics and enhanced sound track. Also out now on CD-ROM for the Engine are *Legion*, *Jack Nicklaus Golf* and *Cyber City Oedo 808*.



CD ON SIGHTS

Beta versions of Commodore's mass market CDTV system are now available. Paul Rigby spoke to top US developer Cinemaware about the system, their first original game for it, and the cynical coverage it has already received

Computer Trade Weekly, the industry newspaper, recently published an article by Steve Cooke, editor of ACE magazine, in which Steve gave his opinion on Commodore's CDTV system. The chap seems to have created quite a stir at top US developer Cinemaware. Not due to their anticipation for the product but because of their disbelief in the article. Bob Jacob of Cinemaware spoke to RAZE about

NEW BALLS PLEASE!

It will "blow everybody's mind," says Cinemaware's Bob Jacob of their first product designed specifically for the CDTV. As the follow-up to the disk-based hit of last year, *TV Sports Football 2* (*TVSF2*) will probably never see the light of day on any other machine – quite strange considering Cinemaware's strong links with NEC and their PC Engine CD-ROM system.

Bob Jacob reveals that, "The whole product will have a video look to it. There are a lot of sequences of coaches ranting and raving on the sidelines – all done in video. It strongly resembles live television. We are working very closely with one of the college football teams on this project [Bob wouldn't say who]. It's a quantum leap over the first version."

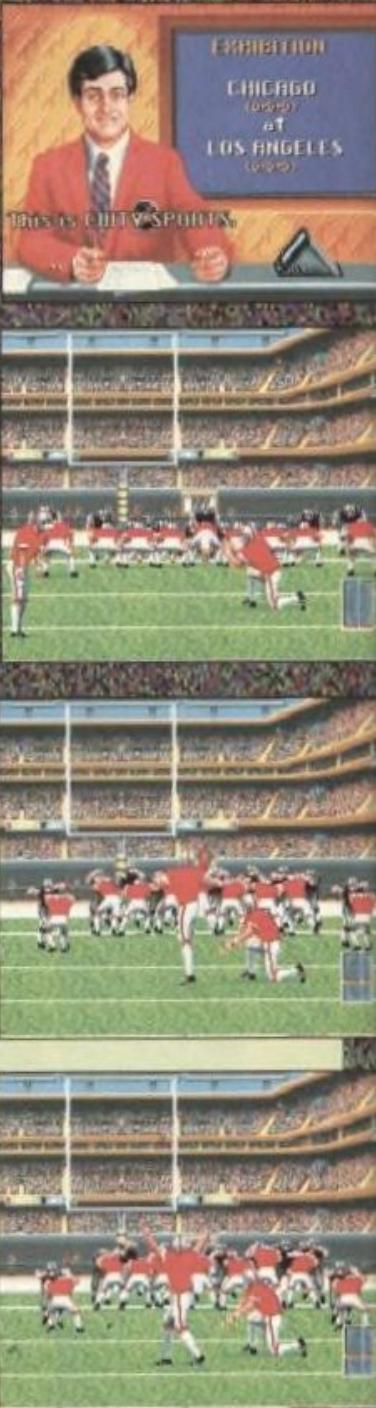
The game interface is an improve-

ment over the original. It is as much an arcade game as *TVSF* but the play will be on a higher level. "One of the problems with *TVSF* was that we had to design it for play on other computers as well, such as the C64. That brought limitations into the design. For example, in the original version of the game the offensive and defensive lines are, basically, blocks. Holes could open within them but they aren't addressable individual characters. In *TVSF2* we have 22 independent characters on the field which makes the action more realistic. It will be the definitive football game."

The program will take around three man-years to produce, excluding the time to design programming tools for the CDTV, so don't expect to see the finished product till late 1991.

some of the points made within that article.

Among the items that grated against Bob was Steve's belief that the public have the misconception of expecting Full Motion Video (FMV) capability from the CDTV – and that they'll be disappointed when they find out CDTV doesn't support FMV. Also, Steve criticised those companies that are promising "interactive movies" and the like, on the basis



Superbowl status is assured for Cinemaware's TV Sports Football when it appears in winter 1991. (Original versions pictured.)



FULL MOTION IGNORANCE?

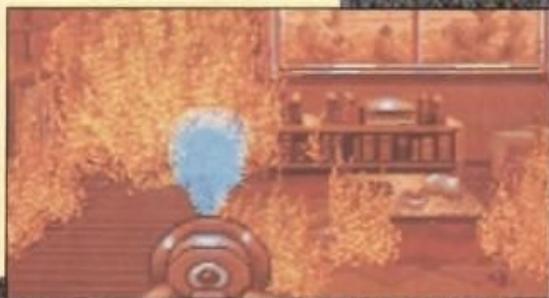
THE REST

Of course CDTV and CD-I are not the only games in town. What other formats are Cinemaware involved with?

"We haven't developed for the FM Towns yet. We licensed one of our products, *Rocket Ranger*, to the Towns. That was programmed by Pony Canyon in Japan.

"In terms of the TurboGrafx-16 CD-ROM. In addition to *It Came From the Desert* we are doing a joint venture with JVC in Japan of our product *Lords of the Rising Sun*. We're doing music and audio for it, they're doing the programming and the graphics."

It Came on the PC Engine, and it comes on the CDTV soon.



CINEMA-FLAIR

"What we're trying to do with *TV Sports Football 2* (see box) is to say that there is more that can be done and we're going to do our best to produce a product that will break out into the mass market. Multimedia has got to be a mass market. I don't care which format or formats are ultimately successful. The fact is, if multimedia machines only appeal to those who like computer games then we are in trouble – the costs will be prohibitive for a start."

Cinemaware's Bob Jacob expressing his CD trepidations. A natural state of mind considering that CD in all its forms is such ground-breaking media. Not only directly but indirectly with the production of the CDTV and CD-I.

Bob recognises the difficulties of CD, both as a developer and as a commentator on CD's potential in the marketplace. However, he is supremely confident in his own company's ability to come up with the goods. Not only for computer enthusiasts, but for the couch-potato who wouldn't know a computer chip from a french fry.

"It is difficult to work in video and make it interactive. Most developers have no experience in video whatsoever. So there's a learning curve they'll have to face in terms of how you deal with actors, how you deal with lighting, how you take those images that you've created in ana-

front of a house and you slap that up on a TV. The door opens. There is a character standing in the doorway, talking. Now the house is not moving. The house can be a still picture. It's only the character in the door that's moving. It's a question of design." Just to reiterate what Bob's saying, if a piece of software is designed properly, the lack of FMV on the CDTV will not be a problem.

"A FMV chip will allow you to store 72 minutes of full-screen FMV on CD. Which is fine, but where is the interactive aspect?

What really pissed me off about Steve Cooke's article was that he's saying that other people had been hyping public expectation for CD. The fact is – we

logue video and convert them to digital and then integrate them into a viewing environment. We had a leg up because we've been doing that type of thing for some time now."

That is not to say that all the problems have been solved yet. Sync time, the notion of how you keep things moving, accessing the drive and knowing how to lay data on the disk to minimise disk access time, are all recurring problems that are still being tackled in the Cinemaware offices.

It is pretty certain, though, that Cinemaware's forward thinking policy of producing movieware such as *Rocket Ranger*, *It Came from the Desert*, *TV Sports* and *Defender of the Crown* will establish Cinemaware as a leading contender in the realms of CD.

Defender of the Crown put Cinemaware in good stead for the interactive movies expected on CDTV.



Cinemaware's Bob Jacob (above): "He [Steve Cooke] was totally wrong. He could not be more wrong. He's confusing FMV with a video look. You don't need FMV to have a video-like appearance."

know exactly what we are doing. In terms of *Desert* and *Football*, etc, if you know what you're doing, it ain't that tough." So Bob is declaring that he hasn't been hyping anything. His company is perfectly capable of all it promises.

"If it looks like Full Motion and you can interact with it, people are going to be happy. Whether it is or whether it isn't FMV – who really cares? Most people, us included, believe that you've got to have a video look if there's going to be a mass market. Computer graphics will not be acceptable to a market that's been wearied on television. If you make it look like television and make it interactive, it's going to work. We can do that with CDTV without FMV."

There are a lot of mutterings and posturings from people who don't understand video. Ultimately, FMV will become very important in the industry. However, you won't see commercial software until around 1993 and the majority of the industry hasn't even come to terms with how you manipulate an image at all, even a still video image. Let's crawl before we walk.

"Spare me from writers who don't have a clue! I talk with these guys who view everything from such a long distance they have no idea of what's really going on. They form generalizations about businesses which they are barely familiar with. I wish that before Cooke had written that article he had called me."

• The FM Towns, as it stands, is a very disappointing machine. The transfer rate is very slow, so slow it's commercially inviable. CDTV transfers 150K per second off the disk – the FM Towns transfers a mere 45K per second. If the FM Towns appears in the USA or the UK many observers believe it will undergo a drastic re-design. It will likely include MS-DOS as standard and therefore become PC compatible. Also, if it is to compete in the PC compact disk market, the transfer rate will need to be upgraded. Maybe this is the reason for the extended delays on its Western release date. We will see.

• The PC Engine CD-ROM has the largest CD user base in the world at the moment (at least 350,000). It is hoped that 100,000 machines will form a significant user-base in the States within the year.



The PC Engine has the largest amount of CD-ROM users in the world. If only NEC would release the thing over here...

• The movie business is moving in! Warner New Media are busy producing CD applications, initially on the CD+G (Compact Disc plus Graphics – similar to the CDTV format) standard. CD+G has been around for 3-4 years. There are audio CDs out there that are capable of producing graphics if your CD player has the capacity (Lou Reed's *New York*, Fleetwood Mac's *Behind the Mask*, etc). Walt Disney are also becoming aggressive towards software. Expect CD applications from this area soon.

• If and when multimedia takes off, who do you think will be the main distributor and high street retailer? The money is on record companies and home video operations run by movie studios. These guys are major players – they make the likes of Electronic Arts USA, Ocean, US Gold, etc look rather silly in comparison. Software companies will probably end up signing label deals similar to the deals present in the record business.

CD C O M P A C T D I S C O N T R O L L E

Paul Rigby spoke to Cinemaware's Dave Riordan about the implementation of Wings on compact disc. Chocks away, Paul

CD-I FLYER

When I heard that Cinemaware had a compact disc version of their fun game *Wings* in development I was intrigued to say the least. But what changes and improvement would, or could, be made upon the original Amiga version? Dave Riordan was quick to reveal all.

"There's quite a bit different. The whole concept of going out on missions will stay the same. From there it changes a lot because we have more room to do things with characters and, more importantly, we can have characters speak as well as music and sound effects. Because we can shoot real actors to play the characters we are pushing it much



The CD-I version of *Wings* will contain more character, integrate more sections and generally be more like a movie.

more towards an interactive movie version of, say, the *Blue Max*. The film was fairly accurate to history, although there were a few things they fudged up. Basically, they were trying to make you understand a certain period of the war and that there is more to war than a pilot in their plane who goes flying off.

"We've built stories around the main characters of the squadron - there are about ten of them. They all have personal issues and backgrounds that may cause friction or may make some people good at something and bad at others. You'll also have to deal with stress from flying. If you try to commit

people to too many missions they may crack up.

"If we are going to produce interactive movies you're going to have to have characters that have a background that tells you who they are and what they will do in certain situations. You also have to experience things in the game and be affected by those things - that's what we go to the movies for."

"CD-I allows us to build a movie around the *Wings* Amiga fun game. The trick is not to get the movie in the way so that it's not a fun game any more. We think we've figured out a formula for doing that. We haven't changed the way the aircraft fly at all, it will look better. The plane, instead of a graphic, will actually be a model that has been built and shot. The 3-D environment aircraft will be rendered better, too. There may be more topographical features on the ground. We are still wondering whether to include the strafing and bombing sequences or whether to merge those with the 3-D game. Merging the sub-games would bring a certain continuity to the product so that you're always looking at the same view."

What Cinemaware wants to hold onto is the 'fun' aspect of the game. So why CD-I and not CDTV? "It just happened that when we talked to American Interactive Media [the Philips/Polygram-funded group responsible for the US launch titles of CD-I], *Wings* was one game they took to. CDTV came along later and we've now got an opportunity to do a CDTV version of *TV Sports Football 2* (see last issue)."

There will possibly be a *Wings* version for the CDTV but because of the way the CD deals are being formulated in the States, there is a period of exclusivity to the company that initially funded the product.

"CD-I is a new machine. It will take us one or two products to work the kinks out in terms of what is really possible. *Wings* is not making use of the FMV (Full Motion Video) chips because there has been no guarantee to us from Philips that they will actually be in the player at launch, they may come later. Which is fine with us because everything we need to do on *Wings* will multimedia now - it's not a problem."

COMPACT STORIES

● One of the great things about Sierra, apart from *Leisure Suit Larry*, is their backing of IBM PC soundboards. In fact, you could argue that Sierra have been largely responsible for the success of the AdLib and Roland boards. Intriguing, therefore, that with the imminent release of their CD-ROM games, *Mixed-Up Mother Goose* and *King's Quest V*, there are strong rumours that Sierra may be gearing up to market a number of add-on CD-ROM machines for the PC. Could the Sierra Effect work a second time?

You know, the traffic's a killer! You forget about crossing streets!



Will Larry be coming to CD soon? It could prove a popular format for such a see-dy character.

● *Final Fantasy* is one of a few half-decent RPGs to appear on the Game Boy in the past year. It has already been released on the NES in the US and is up to *Final Fantasy IV* in Japan. The popularity of this game is such that Final Fantasy shops have opened in Japan. One of big attractions of these stores is a variety of CDs containing umpteen orchestral scores based on all four games.



There's no secret about Lucasfilm's continued CD support, but will we see *Monkey Island* on compact disc?

● Reports from the States say that Lucasfilm's recent release, *Secret of Monkey Island*, is being planned for release on FM Towns and CDTV.

● Rumours from Origin say of the conversion of *Ultima V* to the Nintendo and probably the CDTV. (Below)



CD C O M P U T E R

CD ROM games are a far cry from their tape, disk and even cartridge counterparts. Paul Rigby puts on his hat and coat, clears out his pipe and goes on the detective trail

JOIN THE MURDER CLUB

New on the PC Engine CD ROM is *JB Harrold's Murder Club*. With the large amounts of memory available on CD (around 550Mb), new types of games, which were prohibitively memory-hungry in cartridge form, are now possible. NEC of Japan have just made a detective/murder mystery game which combines CD-quality stereo music with true human voice output.

In *JB Harrold's Murder Club*, Bill Robbins has just been murdered and as JB you have to go out and search for clues, interrogate suspects and gather enough evidence to make an arrest. Pull-down menus allow you to ask a large variety of questions, and from the new information that you learn, additional areas open up for you to investigate and new people appear with more information.

One new feature which NEC have added to this game is that the voice and text are selectable between English and Japanese! By making CD games bilingual, the disc immediately becomes usable to all countries.

FINAL ZONE RETURNS!

Good grief! The PC Engine shoot-'em-up *Final Zone* is only just out and about on CD ROM - yet the sequel is already nearing the final

stages of production! In a similar style to the original, *FZ2* is another multi-directional shoot-'em-up viewed from above. The future people once again require your help as another revolution has occurred. You've got a little help this time as you can select a crew of mercenaries, each wearing their own New Age Power Suit and equipped with unique customised weapons.

ENGINE ALERT

Last Alert is now out on the PC Engine CD ROM. This topical one-player beat-/shoot-'em-up is spread over eight frenetic levels.



The mission is, of course, impossible. It appears that US diplomats from a US State embassy in the Caribbean have been captured by a crazed psychotic killer with a view to using them as hostages in his bid to take over the country. To prevent any attack from foreign governments, the clever chap has placed the hostages at critical military installations around the country, effectively using them as human shields (I said it was topical).



Due to this popular set-up, an all-out attack is out of the question, the only hope is that one man can infiltrate the country's defences and destroy the bases individually. After knocking out the installation you must rescue all the hostages and then go on to find and eliminate the dictator.

COMPACT STORIES

- Gremlin are moving onto CD. With the release of *Little Devil* at the end of 1991, they hope to give Commodore's CDTV unit a massive Christmas boost. The game revolves around six bad angels who are all trying to beat each other back to heaven. With graphics from the same guy who did the work on *Sullivan Bluth's All Dogs Go To Heaven* and *Land Before Time* movie cartoons, *Little Devil* looks set to give the *Dragon's Lair* series a run for its money.

- Accolade's upcoming title for the PC Engine, *Jack Nicklaus Turbo Golf*, will have 18 holes on the PC Engine cart while the CD version will contain 90 holes plus three digital soundtracks.

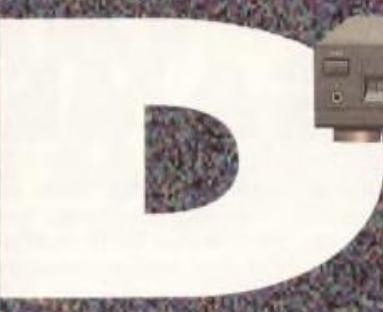
- NEC plan to take CD technology into the other areas beside games, more specifically they are looking at the home education market. Their new *Magical Dinosaur Tour* CD is a virtual encyclopedia on the subject, with dozens of screens showing how and where the monsters lived millions of years ago. In addition, a CD from Discus will contain ten children's books with full voice output.

- NEC plan to bring out a monthly magazine called *Ultrabox* on CD. It will feature games reviews, game news and even a video game!

- Sierra may be releasing a £700 IBM PC package which would include a CD ROM drive, interface card, a sound card (maybe Sound Blaster) and two CD ROM games.

CD REMIX

DJ Paul "Jazzie Master" Rigby gets a compact studio on compact disc for the CDTV (little things please little minds etc...)



How would you like to be able to take a CD and then re-sequence it? To take a Madonna CD, for example, extract a couple of parts from it, merge it with your own samples and sequences, loop them, reverse them, repeat them, etc, etc! Sounds good, eh? A DIY home studio, even?

You will have the chance to do just that when the CDTV appears because Microdeal are in the midst of producing the groundbreaking software required to do it. John Simes at Microdeal had a few (hundred) words to say about their CD Remix project.

"The best way of doing it would be to take a CD single with around four re-mixes of the same track on it. Then, from our controller, you would be able to tell the CD to play track one from part A to part B, then go to track two and play part C to part D. Then to load the parts into the



computer's memory and overlay them or use the built-in drum machine to add a drum beat!"

No separate hardware will be required. All you would need to do is load the CD Remix program from CD, then put in the regular CD music disc to use as data.

There are certain limits to the

program, though. For example, there will be no links to other programs such as Deluxe Paint or AMOS. However, you will be able to use Microdeal's Quartet and AMAS sampling software with CD Remix.

"You can, if you wish, plug in extra CDTV units together via the MIDI channels and then use one CDTV as a master to control the other machines. DJs, for example, could take tracks with the same sort of bassline and mix them together."

Don't be misled, though. Remix is not aimed towards the professional market. Remix is a program for everyone. The program is structured so that it will not contain a "language" as generally perceived. There will be no clunky GOTO or FOR...NEXT statements here. The best comparison I can give you is that you will form a batch file or macro of Remix commands which are defined from icons.

"For example, you'd have an icon of 'play' and within that icon would be what track to play, what areas to play and when it should begin playing. The next icon might be to 'play a sample in the computer's memory' then 'send out a MIDI start command to switch to another CDTV' then 'wait for MIDI start' then 'play Quartet voice set' and so on."

You would then be able to save that sequence command file to the CDTV's smart card which you get with every unit. This allows a quick repeat of that worked sequence whenever required, like at a party.

The possibilities for this piece of



FIRST PIX OF CDTV!

The software development of CDTV products is well underway. Indeed, by the time you read this, the unit should already be on sale in America (bet it's not, though!).

Here are a few sneak preview pictures of the CDTV Welcome Disc detailing all the amazing functions it contains. Also almost finished from Commodore is their Time Table of History educational CD. The closer the CDTV's release gets, the more and more I want one...



* Microdeal are working wonders with CD Remix. Especially so as they do not even have a CDTV yet! They only have the development kit to work with at the moment. It makes you wonder what Commodore are playing at since, at the time of writing, the CDTV is actually due for an American release in February!

* Expect to see the Sierra games Jones in the Fast Lane and King's Quest V on CD-ROM for the IBM PC (probably Sierra's own hardware system) and CDTV.

Gawk at those graphics! Could this be the prettiest computer game EVER? We'll have a full review of the standard PC version of King's Quest V next month.



Apparently, Sierra wanted a CD-ROM machine built in as standard on the first PC. They didn't get it, of course, which is a pity because if they did, we could all be playing CD-ROM games now instead of disk. Even so, Sierra are producing startling products like the impressive King's Quest V, as pictured here on the PC.

* Gremlin's CDTV version of Little Devil, featured in the last issue, is still ten months away from release.

* It is an open secret that Sierra consulted IBM when the latter was working on the PS/1 and asked for the inclusion of a CD-ROM player. It is also rumoured that Sierra were bitterly disappointed that the CD-ROM failed to materialise in the PS/1 machine. It now appears that IBM are working on a CD-ROM player to be sold as an add-on. Initially through the usual retail outlets but also through Sierra themselves!



software are endless. From making your own demos to becoming part of a professional music studio, CD Remix looks like being one of the more interesting software developments for the CDTV. We wish Microdeal good luck... and hope they'll send us a copy soon!

CD CONSOLES

The man with the shiny discs is back.
Paul Rigby looks at the three console CD-ROM systems, and brings news of a fab American Laserdisc game.

LUSCIOUS LASER TITLES
 American Laser Games are a New Mexico outfit that are about to produce the Laserdisc arcade unit version of, wait for it, *Mad Dog McCree*. But they're nothing like the Laserdisc games you may remember from the distant past. These new video games incorporate real interactive technology instead of computer generated graphics or animation.

The game was filmed at the Eaves Ranch in northern New Mexico for the cost of a low budget movie (over \$250,000) with a cast of actors, professional stunt people and explosive experts.

Two versions of the game are in the works: a 33" colour monitor version and a 50" rear projection TV model. The initial cost of *Mad Dog McCree* will be pricey (up to \$13,000 apiece) but American Laser Games has a plan that will make the games more affordable for arcade operators. Arcades will be able to rent new Laserdisc titles from American Laser Games so when players tire of a title it can be changed quickly and cheaply.

If you've recently bought a console and thought you were at a dead end when it comes to expanding, then think again. If you own a PC Engine, Mega Drive or Super Famicom then the future is bright. Indeed, PC Engine owners have been having it rosy for many years now.

The PC Engine CD-ROM offers 64K of system RAM, 2K of backup RAM, and the drive supports a 150K per second data transfer rate. Sounds impressive, doesn't it, but the technology is over two years old now and is showing its age. The main problem is the access time, which can be anywhere up to three seconds! When you're in the middle of playing something like *Wonder Boy III*, this can be very frustrating. But the machine is for much more than just playing games.

When it's time for a music break you can play audio CDs. Just plug the CD-ROM into your stereo, pop a music CD into the unit and crank up the volume. If you have a TV connected to the PC Engine, you can use the regular joypad to select commands from menus displayed on screen. As with any CD player, you can select random play or programmed play. A special menu enables you to select the tracks you want to play and a "music calendar" displays the order of the tracks. You can choose which track you want to begin playing from, fade in/out between tracks or just listen to the intros of each track till you find the one you're after. Clever stuff.

As for a Mega Drive CD-ROM, well, Sega are keeping quiet. But be in no doubt that there is going

one. There are several versions of a CD-ROM unit for the Mega Drive depicted in the Japanese press, and here's what information can be gleaned from the coverage. The Mega Drive and its CD player will probably be connected in piggy-back form. The CD-ROM drive will serve as a base for the existing game system unit which will nestle inside of it. The mysterious port on the side of the system unit will fit into a slot at the top of the CD-ROM. Unlike the PC Engine CD-ROM which requires that you manually fit a disk into the drive, the Mega Drive player will use a motorised front-loading mechanism similar to that of audio CD players. To access a compact disc in the player, you will need a special system cartridge.

Gamesplayers will be glad to know that the Sega unit is being fitted with a hefty RAM buffer for its CPU. This will enable the unit to read and send game data while continuing other game functions. Depending on the proficiency of games programmers, it should cut down the lag produced by CD's slow access times. You'll probably see a Japanese Mega Drive CD-ROM unit before the year's out, with a price of around £200.

The only other console that is certain to get a CD add-on is Nintendo's Super Famicom - but don't expect it this year. There are no hard facts at the moment, but how's this for a meaty rumour: the Super Famicom CD-ROM unit could access up to five discs simultaneously!

As the months pass by, I'll get more hard facts and juicy rumours. You'll catch the latest CD gossip here every month (almost).

Still going strong after all these years.

★ *Valis III* is another hot CD game on the PC Engine and continues the story of the magical Valis sword. The evil Emperor Magus (picture a Transformer with a bad attitude) is once again ravaging the land of Vecanti and the holder of the Valis sword is the only one with a chance of defeating Magus in over nine levels of action adventure. Released in Japan this month.



The PC Engine CD-ROM market is still going strong. The legendary heroine, Valis, returns for a third instalment.

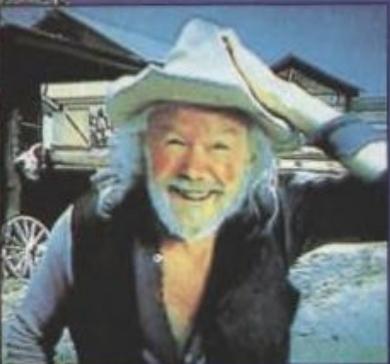
★ Access will use a modified graphics engine to produce slick live video footage within a range of planned CDTV titles. Many gamers will have already seen the prototype system used within the computer versions of *Crime Wave*, *Mean Streets* and *Countdown* (all available from US Gold).



Access, the makers of *Countdown*, will soon be breaking new visual boundaries in the CD market too.

★ If multimedia is successful, the days of the traditional software publisher are numbered. To produce one multimedia title on CD-ROM will set you back at least \$250,000 (£125,000 approx) more realistically \$800,000 (£400,000 approx).

★ Psygnosis are working on a CDTV title called *Dawnscape* that will also appear on the PC Engine CD-ROM. Some of this game has the look of a claymation movie, however, Psygnosis are also using ray-tracing, 3-D modeling and fractal-generated graphics to give a slick special effects feel at 30 frames per second. The release of *Dawnscape* is still about two years away, though.



CD ON COMO DIS CDS

April 30 was the historic day – the official launch of Commodore's CDTV. Yep, it was really there. No cardboard cutouts, no 3-D holograms, it was not stuck behind a glass case, there was even more than one of them. In fact the launch, which took place at BAFTA in London, also saw quite a few companies taking stands to show their forthcoming software.

After a shortish presentation from a couple of boids from Tomorrow's World, the merry throng, well, mingled. Gazing among the stands, overall I felt a little blasé about the whole thing. I didn't get very excited at all. A pity, really, because I thought I would. I reckon that the hype has got to the point where nothing surprises me about the CDTV any more.

Actually, I was a little disappointed with the launch. I expected something, well, bigger. Two fairly average sized rooms was it, really. I also expected more companies to turn up – especially from the States. Even if they didn't have software to show, it would have been nice to see them and discuss what they were up to. But no.

Commodore spread themselves around, which was disconcerting. At the fun-packed launch, by rights, I shouldn't have seen any Commodore rep as they should have been buried in the throng of excitement and the throbbing masses of people. The masses didn't turn up, though.

Don't get me wrong, the software on offer was very solid, very worthy, all good stuff in fact. It's just that there was no "oomph" to the launch at all. Pity.

EXTRA! EXTRA!

From September 1991, a CDTV infra-red keyboard, 3.5-inch external floppy disk, an infrared brick/trackball with joystick ports, and extra smart cards, enabling you to save up to 64K or 256K of data, will be available. Information saved upon the smart card will allow you to turn off the CDTV without losing any information (ie: a saved game, or your place in an encyclopedia). Other add-ons will include a genlock (for video-titling over TV programmes etc), another MIDI in/out, a printer, a modem, and a two-player infra-red interface.

There were few people who doubted that Commodore would eventually release the CDTV. But many doubted its technical spec. Now the finished article is on sale, Paul Rigby checked out its potential

FRENCH PEAS

Mes petit pois on the Infogrames stand where showing the CDTV version of *Sim City* – and very nice it looked to. I tell you what, though, it was the fastest piece of software on show. It fairly whizzed along. Scrolling at turbo rates, reports popped up in a flash. The game has been redesigned and enhanced and includes all the present architecture disks on the same CD. In addition, the reports have been improved and are now full screen. My only criticism was the awful pseudo-French heavy metal music playing in the background. Apart from this type of music grating on the nerves, it just didn't fit the cerebral atmosphere of *Sim City* at all.

FIRST OFF THE STARTLINE

On-Line, a company to rise from the ashes of the defunct CRL group, had two products on show, with a third waiting in the wings. *Psycho Killer*, an interactive adventure, is a Delta 4 production using the DUNE game system. During the demo, I was faced with a mad killer carrying a number of offensive weapons, all intent on disturbing my baby-face complexion. Using the CDTV joypad you could move the cursor to different parts of the psycho's body and, by pressing the fire button, strike blows, pick up items and so on. The other item on show was *Eadweard Muybridge's Women in Motion*. A Victorian look at a number of scantily-clad ladies doing a series of simple movements such as stepping upon stairs, climbing

over things, walking, etc. Very handy for artists and computer animators to use as study material for the movement of the human body – and all done in the best possible taste (ie: black and white).

The unseen title was a Sherlock Holmes Murder Mystery title called *The Hound of the Baskervilles*. Giving you the chance to solve a case through the eyes of the great sleuth, *HOB* lets you sift through papers, documents, telegrams, letters, photographs, police reports, etc, to assimilate the evidence for the case. With lots of digitised images and sound, *HOB* looks like a winner.

Apart from the Falcon CDTV release (see Take My Breath Away overleaf), Mirrorsoft were showing the ever-popular, vertically scrolling shoot-'em-up, *Xenon 2: Megablast*. With throaty CD sounds courtesy of Tim Simenon's remixed version of his original Megablast (Hip Hop on Precinct 13) track.





NO MILK TODAY...

Virgin were sort of there in spirit – or in press release, anyway. It was a bit like leaving a note for the milkman. On the scribbled note they said that, yes, isn't all this CDTV lark fun and, yes, we've got lots of titles lined up but, no, you can't see any of them yet (*Sir Ranulph Fiennes' Transglobe Expedition*, a RPG adventure, will be the first release) and, oh, just two pints and a tub of full cream for the morning, please.

A RIGHT OLD CHARLIE

I must admit that I'm a Charlie Brown fan (I fall about laughing when he does those crinkly smiles), so The Edge Interactive Media have my undying gratitude for the release of *Snoopy – The Case of the Missing Blanket*. Featuring a CD soundtrack, a jazz piece composed by Dave Grusin (he worked on *The Goonies* film), and digitised voices of the Peanuts gang, the game revolves around Linus losing his blanket and Snoopy trying to find it. *Snoopy* is a Sierra-type adventure with a few arcade sequences scattered around to liven up the proceedings. Next on the cards are *Raffles*, *Garfield – A Winter's Tale* and *Garfield – Big Fat Hairy Deal*. Can't wait because I just happen to be a Garfield fan, too.

NO FMV?

Although the CDTV has no Full Motion Video chip installed (to give a film-like moving picture), the CDTV is compatible with the Moving Picture Expert Group (MPEG) full screen, full motion standard. Therefore, it is possible that FMV upgrades could be offered in the future.

BUNTLIFUL BARNEY

Associated with the BBC, the lads at The MultiMedia Corporation were showing what quickly became the cult figure at the CDTV launch, Barney the Bear, who appeared in his latest blockbuster, *A Bun for Barney*. The girls screamed, the cameras flashed, etc.

Seriously, though, *A Bun for Barney* is an engaging (and embarrassingly addictive for a man of my age) children's animated tale. Barney, a small, cuddly bear, discovers that the world is full of bounders ready to rip off the cherries on his iced bun.



Barney Bear from The MultiMedia Corporation could become the CDTV's first cult figure. This cute little ursine creature stars in *A Bun for Barney*, the story of Barney and some evil men that have nicked his food.



Subsequently, Barney soon learns that the only way to have your cake is to eat it.

Barney's magical pop-up world contains animations, surprise word and number games and nursery rhymes, all of which any toddler can access with no probs.

The story is based upon Joyce Dunbar's book of the same name and is narrated by ex-Doctor Who man, Tom Baker. Animation, incidentally, is produced by the folks behind the Peanuts show. I wonder if there's a sequel in the offing?

IN CONTROL

An odd one, this. Basically MDR are offering a system to control the home using the CDTV as a central processor while playing audio discs at the same time. So if an alarm is triggered then, in addition to the standard facilities such as bells and telephone warnings, the system can speak and display the alarm information on a normal TV. In effect, you plug the MDR interface into the CDTV and then plug anything into the interface, like thermostats, fire alarms, door sensors, lighting, heating, curtains, cameras, etc. Strange, very strange.

Animated Pixels had *The Holy Bible* on CD with the complete text of the Old and New Testament plus piccies (not "live digitised" though) and sound. Applied Optical Media Corporation received the prize for the longest company name while they showed their *World Vista Atlas*. After consulting this piece of software, I now know what clothes to take with me when I next visit Greenland, and I have full knowledge as to the state of the Bolivian medical facilities. Now I sleep sound at night.

WHEN, OH, WHEN?

The CDTV should be at your local computer emporium now. The price? It'll set you back £599.99 (inc VAT). The CDTV will include three complimentary titles. A Welcome disk explains how to use the CDTV and two titles give you two extremes of use the machine is hoped to serve in the future. On the serious side there will be *Hutchinson's Encyclopedia* containing 25,000 entries, 7,000 biographies and 250 tables. The other is *Psygnosis's Lemmings*, the highly-addictive tale of everyday lemming folk.

MORE THAN SOUND

As well as playing conventional CDs, the CDTV will also access the latest CD+Gs (Compact Disc and Graphics). Actually, some of you may already have a CD+G in your ordinary music collection. By playing this on the CDTV, you will hear the music and see computer-generated graphics (lyrics etc) displayed onscreen. The present list of CD+Gs follows, but more are appearing all the time.

ARTIST

Alphaville (Breathtaking Blue)	ATLANTIC	81943
Laura Branigan	ATLANTIC	82086
Ella Fitzgerald	SIRE	26023
Flamin' Groovies	SIRE	25948
Fleetwood Mac (Behind the Masks)	WARNER BROS	26111
Emmylou Harris (Pieces of the Sky)	REPRISE	2264
Jimi Hendrix (Smash Hits)	REPRISE	2276
Information Society	TOMMY BOY	25691
Chris Isaak (Silvertone)	WARNER BROS	25156
Little Feat (Representing...)	WARNER BROS	26163
Little Feat (Hoy, Hoy)	WARNER BROS	3538
Gram Parsons	WARNER BROS	26108
Van Dyke Parks (Tokyo Rose)	WARNER BROS	25968
Bonnie Raitt (Green Light)	WARNER BROS	3630
Bonnie Raitt (Nine Lives)	WARNER BROS	25486
Lou Reed (New York)	SIRE	25829
Woody Guthrie (Tribute)	WARNER BROS	26036

CAT. NO.

TECH SPEC

The CDTV, as you are probably aware, is an Amiga with a CD stuck to it. The whole thing is then plonked in a CD-player case and called a CDTV (Commodore Dynamic Total Vision). However, there have been one or two additions to the ensemble. Here's the official, final, as-seen-in-the-shops Commodore specification.

PROCESSOR/SPEED

Motorola 68000 16/32-bit @ 7.14MHz

CO-PROCESSORS

Three custom chips (Agnus, Paula and Denise) dedicated to handle video, sound and graphics.

CD-ROM DRIVE

Sony/Philips type CD-ROM standard Mode 1, Mode 2.

Access time: 0.5 sec (average), 0.8 sec (maximum)

Commands: CD-ROM, CD audio, CD+G, ISO-9660 standard supported

Capacity: 540Mb

CD AUDIO

Dual 16-bit D/A convertor plus 64 levels of attenuation with 8x oversampling.

Audio output: 1.4V RMS, 10K OHM

Frequency response: 4-20KHz

Signal/noise: 102db

Channel Separation: -92db

Harmonic Distortion: 0.02% at 1KHz

Audio capacity: 28 hours (AM quality)

Sample rate: 44KHz to 6KHz

REAR PORTS

Serial (RS232)

Parallel (Centronics)

External FDD (Amiga compatible)

Hardwired alternative to IR for keyboard, mouse...

Two audio ports (phono)

MIDI In and Out

FRONT PORTS

Stereo headphone socket

Personal memory card

VIDEO OUTPUT

Analogue RGB

Digital RGB

Composite video PAL (phono)

RF modulated

Optional genlock (CDTV, video or mixed)

VIDEO DISPLAY

512 vertical lines @ 50Hz

Maximum 1Mb video memory (chip memory)

Palette of 4096 colours

8 sprites per scanline

EXPANSION SLOTS

Intelligent video slot (for optional genlock, RF board, etc)

25-pin edge connector

DMA slot for SCSI (hard disk)

LAN (networking)

TAKE MY BREATH AWAY

Putting a game onto CD is not just a case of changing the output device for saving files. Paul Rigby spoke to Rowan Software about their experiences in developing Falcon for the CDTV

Hot and steaming from the bowels of Mirrosoft is the news that *Falcon*, most beloved of flight simulations, is to appear on the infamous CDTV. Developed by Rowan Software, the format of this six month project (just for the CD version) will be as follows. The original *Falcon* simulation will appear more as a training scenario, while the two mission disks will form the actual competitive gameplay. Three games in one, no-less!

However, there will be some interesting improvements. For example, during the development of *Flight of the Intruder*, I was fortunate enough to hear a number of real-life recordings of the flight tapes from a variety of missions and aircraft during Vietnam. Dramatic and often tragic, these tapes formed part of the research process for *Intruder*. These same recordings, along with more recent information, have been used to produce radio chatter (spoken by five actors and recorded onto CD) whilst you play *Falcon*. Rowan boss, Rod Hyde, talked exclusively to RAZE about the exciting project.

"This radio chatter will be added to the basic 20 messages found in the computer game. It is amazing how the radio chatter adds to the atmosphere. You'll hear about good and bad things happening. Some sequences are long, others are short. There are about 50 different stories in all. It means that you will have radio traffic about half the time. It will be up to you to pick out those messages that are meaningful



and those messages that are just chaff. We are still getting the CD cut for those sequences. However, for testing purposes we do have a CD with messages from the film *Top Gun*, although they are totally unrelated to the game. You'll be flying along and suddenly hear Tom Cruise ejecting, for example.

"The radio 'stories' vary in subject matter. For example, you may hear a mayday call, then Red Crown (the patrolling radar and communications aircraft) responding, asking for the information on the mayday. Another aircraft may be heard trying to obtain visual confirmation of the incident and so on. The personalities of the radio



messages will be different too. That is, some of the people talking on the airwaves will be very excitable, others will be more laid back and so on." Stories consist of different sentences so Rowan are able to mix-and-match sentences to form different stories.

At the beginning of the game is a special introductory briefing: "We are getting together a number of video sequences. So you may see a Falcon fly-by while you are being welcomed to the base and being told what you are supposed to be doing. Many of the video sequences are sourced directly from Gilman Louie (Spectrum Holobyte boss). So you'll see a typical briefing room (this will be artwork) with the backs of people's heads and you're one of them. You will also see a video screen with a film (digitised video) running plus the audio associated with it."

Surprisingly, Rowan admitted that they are filling the disc and are even attempting to cut down on some of the data! While the games themselves are largely unaltered, there are one or two additions: "When you click on the mission of your choice, you get a one sentence audio description of that mission. Then the screen changes to a briefing scene where you get a longer audio description of the mission plus another briefing screen showing a still

The whole front-end of the CDTV version of *Falcon* will change from the original to accommodate the extra mission disks which will also be included on the disc.

of the target. We have also been able to improve on the general sound."

In addition, because many moons have passed since Rowan last touched *Falcon* they intend to upgrade many aspects of the game, making the code more efficient. As well as the intro sequence there are other video clips such as an introduction to the F-16, air-to-ground weapons, air-to-air weapons, external stores, enemy recognition, a briefing on the overall training session, *Falcon* itself and the two principle missions. There are ten briefings in all, some of which may include video stills. Rowan also hope to have a total of 40-50 minutes of audio on the disk.

One of the potential difficulties of playing a flight simulation on the CDTV is the lack of a full-size keyboard. The CDTV will be supplied with a small keypad, but Rowan do not predict any difficulties here: "*Falcon* can be played on 12 keys, which is quite a surprise. As long as you've got a keycard in front of you, or overlay, you can play it. If someone has played *Falcon* a lot on a full scale machine they may, initially, have difficulties because they are thinking where the keys are on the big machine." Other people who have never played *Falcon* before are able to play *Falcon* very well on the CDTV."

You can fly *Falcon* just as in the computer version but you will not have to do as much – except concentrate on flying and finding the targets. Speaking of which, the important keys, such as changing your targets, are still present.

Rowan have decided not to implement the new infra-red joystick that will be available for use with the CDTV. Mainly because you need to hold the joystick with two hands, so it is not possible to hold and control both the joystick and keypad.

It's heartening to see that *Falcon* on the CDTV will not be just a simple conversion of the old computer hit. Rowan really are hoping to show off the extra capabilities of Commodore's multimedia machine whilst improving the content of *Falcon* at the same time. Good luck to 'em, I say.

CDTV TITLES

NOW SHOWING

SUBJECT

Gardenfax Indoor Plants
Women in Motion
Fun School 3
Barney Bear Goes to School
My Paint
Music Maker
Complete Works of Shakespeare
Illustrated Holy Bible
World Vista Atlas
Timetables of Science and Industry
Timetables of Business, Politics and Media
The New Basics
American Heritage Encyclopedic Dictionary
Dr Wellman Family Health Adviser
Classic Board Games
All Dogs go to Heaven
Sim City
Psycho Killer
Defender of the Crown
Battlestorm
Wrath of the Demon

COMING SOON

SUBJECT

Gardenfax: Fruit, Veg & Herbs
Gardenfax: Garden Plants
Gardenfax: Trees, Shrubs, etc
Animated Colouring Book
Advanced Military Systems
Our House
A Bun for Barney
Cinderella
The Paper Bag Princess
Thomas's Snowsuit
The Tale of Peter Rabbit
Scary Poems for Rotten Kids
Mud Puddle
LTV English
Mind Run
North Polar Expedition
Battle Chess
Falcon
The Case of the Cautious Condor
Snoopy - The Case of the Missing Blanket
Sherlock Holmes Consultant Detective
Many Roads to Murder
Murder Alone?
The Hound of the Baskervilles
Spirit of Excalibur
Future Wars
BAT
Unreal
Pro Tennis Tour II
Xenon 2: Megablast
New Grolier Electronic Encyclopedia

PUBLISHER

CDTV
ON-LINE
DATABASE
FREE SPIRIT
SADDLEBACK GRAPHICS
CDTV
ANIMATED PIXELS
ANIMATED PIXELS
APPLIED OPTICAL MEDIA CORP
XIPHIAS
XIPHIAS
XIPHIAS
XIPHIAS
CDTV
MERIT
MERIT
MAXIS
ON-LINE
CDTV
TITUS
READYSOFT



This is Lady Baskerville, one of the antagonists that Holmes has to confront in this devilish case.

suit the intellectual market for the CDTV quite well.

By contrast, *Psycho Killer* is something of a let-down. It revolves around your stumbling across a psycho chasing a woman across the moors and the subsequent chase and fight between him and yourself. The ultimate aim is to get to the police before he gets a knife to your throat. *Psycho Killer* is actually quite enjoyable but it doesn't have the professional presentation of the other two. The biggest mistake was failing to get a qualified actor to do the commentary. Most of the time, the comments sound like a very nervous

RIGHT ON LINE

Julian Boardman spotlights CDTV supporters On-Line

On-Line's first CDTV product is *Women in Motion* which features the work of Eadweard Muybridge. During the 1890s he spent a lot of his time photographing moving creatures as part of his research at The University of Pennsylvania. The majority of this time was spent photographing naked women – again for purely scientific reasons. He used three cameras set up at different angles to take a swift succession of still pictures so that when played back at speed they gave the impression of motion but



One of the many sets of sequenced stills to be found in *Women in Motion*. Muybridge set up three cameras to record action from different angles. This is one of the more lively pieces to be found within this product.

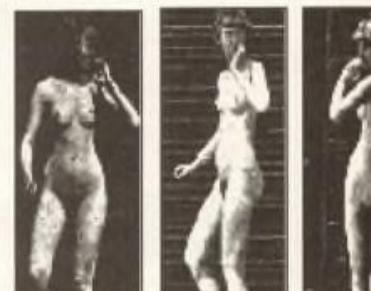
also allowed the freedom to be able to freeze the action at any time. It is this collection of works that makes up this title. Using the CDTV, you can select any one of Muybridge's studies to watch, leer at, or use as a valuable part of your work as an animator. There really are going to be very few lechers buying this product, it is an interesting and valuable work that is more scientific than erotic, sometimes beautiful but never vulgar. A high-quality work that should



The title screen from *Women in Motion* has four small sequences. Click on each one to see it go through the repeating sequence of stills.

and very crap amateur dramatist at his first rehearsal. Approach with caution.

The final product nearing completion is *The Hound of the Baskervilles*. This is a CDTV conversion of the dossier format Murder Mystery that appeared from Webb and Bower some six years ago. You are presented with all the information and evidence available at the start of the case, and point and click to bring up fuller details. These items include



letters, a diary, train timetables and the like. You are given the task of solving the case, which is based on the original story, in the persona of Sherlock Holmes. This is definitely one for the budding detectives out there, and not for just anyone who fancies a gentle walk around Dartmoor.

Compact Disc

CD technology has revolutionised the way we listen to music. Vinyl records are all but redundant and magnetic tapes are under threat. Will the effect on the computer industry be quite as spectacular...?

So what's what? The range of CD units available is huge, and getting larger as you read this magazine. OK, maybe not that quick, but the range is ever expanding. The key question remains, will the different platforms for a CD based system fail to complement each other, with the possibility of cancelling each other out leaving no set format?

Initially an agreed international standard was set, which allowed a CD to have a whopping 650 Megabytes of information on a single 12cm disc. Its potential was very quickly realised and the basis for all CD systems was set in stone.

The robustness of each disc is worthy of note. Whereas magnetic disk systems can easily be wiped, or actually misread by the passing head, the chances of this happening on a compact disc are vastly reduced.

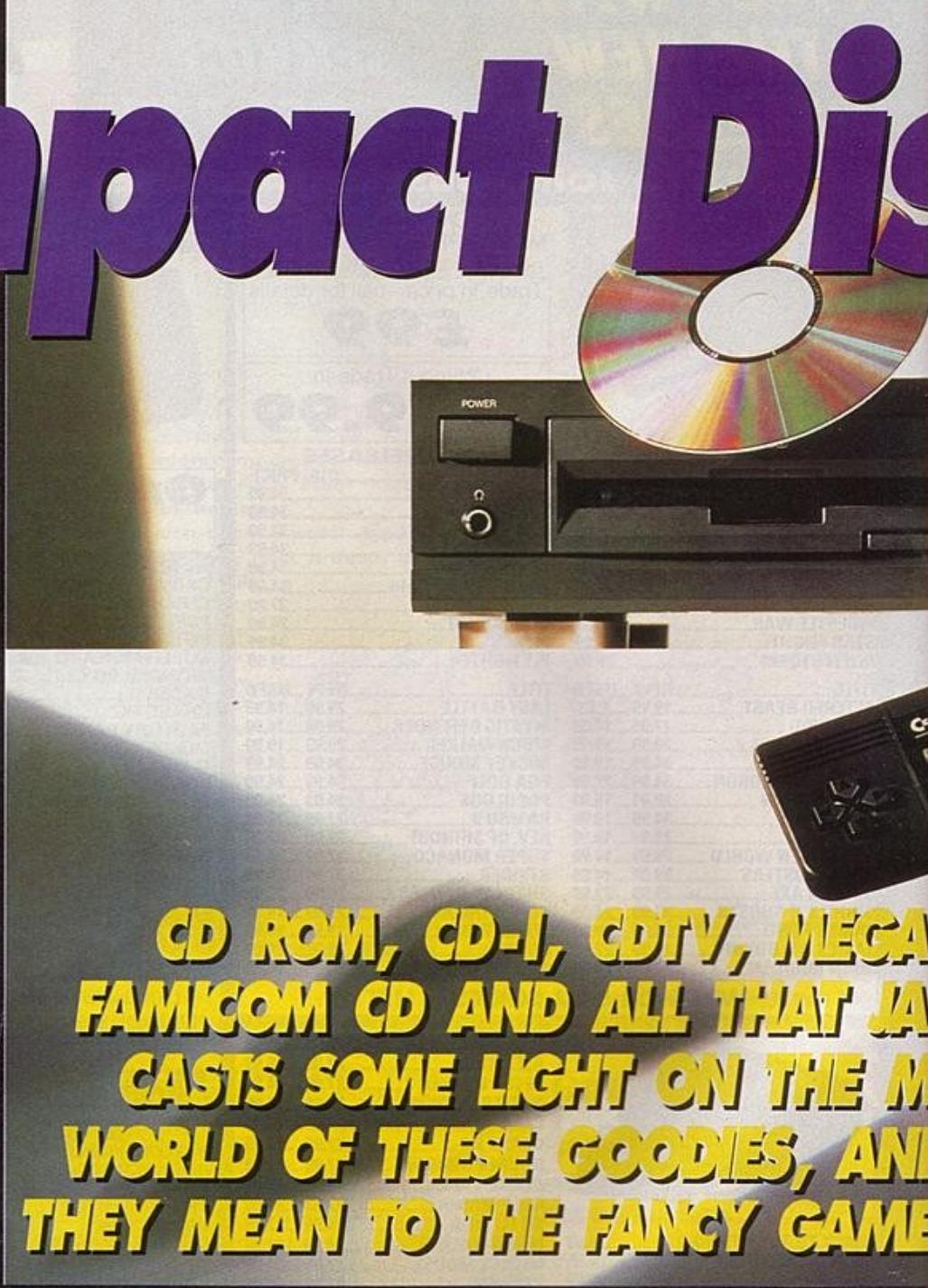
The laser beam reads optical pits in the disc, but doesn't actually touch the surface. Marks such as fingerprints are ignored because they're out of focus to the passing beam.

CD - THE HARD FACTS

Phillips CD-ROM - Compact Disc Read Only Memory - was the first to burst on the scene. Taking the ideals behind audio CD, it utilises the platters as a versatile storage medium for quick retrieval of information.

Basically, its function was that of a monster sized Hard Disk using the 650 Megabyte storage capacity, with the features of full archive but without any save function on it. Although CD-ROM has already set the standard to the home entertainment public, it is lacking in many respects, particularly games. Most are shovelled directly onto a single CD as existing disk based games.

If you're lucky you may have a CD quality speech and soundtrack, but the processor speed of



CD ROM, CD-I, CDTV, MEGA FAMICOM CD AND ALL THAT JAZZ CASTS SOME LIGHT ON THE WORLD OF THESE GOODIES, AND THEY MEAN TO THE FANCY GAME

your computer dictates the rest, unless the images are transferred direct from the spinning disc.

CD-I - Compact Disc Interactive - is the latest, and much more promising, fixture for the CD medium. Whereas CD ROM requires a base machine such as a PC or a Macintosh, CD-I is a more consumer orientated medium.

Simply buy the CD-I package and bingo, you're away. Supposedly setting new standards for 'real-time interactive systems', it's a stand-alone multimedia system with real-time interactivity.

In English, that means it's capable of fast full-motion video and audio processing, and it certainly



looks a winner for the future. All CD-I compatible CD's are usable on this system. You can also use it as a standard audio CD player, with video footage of the band in certain circumstances.

Commodore's CDTV is another interesting package. Based on the incredibly popular Amiga architecture, it is bound to succeed with its full multi-tasking ability, and dedicated chips for sound, graphics and animation.

An all in one package, your only requirement is a monitor and, with the ever increasing range of compatible discs available, you'll be ready to go.

It is a brave launch, especially in Europe, where the home entertainment market is a little on the staid side. People simply aren't yet ready to have a CDTV unit on the same pedestal as video and hi-fi.

With the announced launch of a CD add-on to the Amiga, making it CDTV compatible, I can see it taking off to an unprecedented degree in the CD arena, making it one heck of a contender.

However, CDTV does seem to have a limited vision of the future, which appears to be orientated only to its own technologies.

SCUSSION



CD,
VZ, GX
URKY
WHAT
PLAYER.

With more standardised systems being launched on the CD-I front, and on the existing CD-ROM standards, if it isn't careful Commodore could be left out of the running.

CONSOLE CD?

CD is destined to be the mass media for the near future, and the leisure market looks to be one of the main benefactors of this upsurge, together with the fields of education and business.

It is therefore no surprise that those giants of the games industry, Nintendo and Sega, are getting in on the act. Sega are launching a CD system based on the incredibly popular Mega Drive.

Known as the Mega CD, its basis as a games-based CD medium is there for all to see. Only just released in the states, it offers spectacular sound capabilities with state-of-the-art graphics.

Phillips are the lucky chaps behind the elusive Nintendo CD licence and have developed a rather special CD device for Nintendo. The major drawback concerning this gaming medium is its basis and parent system, the Super Famicom.

Although available from selected retailers, the Famicom isn't officially available in Britain. The question remains, will we see this remarkable Phillips/Nintendo collaboration come to fruition in the UK?

Unlike the Commodore, the Sega Mega CD and the Phillips licensed Nintendo CD player are aimed solely at the home leisure market.

Being able to play games with CD quality sound and graphics is a major boost, especially with their famed games such as Mario being specially prepared to exploit this technology.

Designed as a CD system for the games player, you can expect a high quality hardware base, with spectacular music, graphics and blitter chips to match or possibly even better the Amiga based technology of the CDTV.

However, the major pointer must be whether the massive ground base of Amiga owners will be swayed to move away from their beloved Commodore machines.

The future is as varied and as colourful as a CD's reflections. Only time will tell the successor.

GLOSSARY

A Games-X in-depth look at what the blurb means in the blurb you'll come across.

CD - COMPACT DISC - A silvery platter, normally used for dire Dire Straits albums. They can contain a lot of computer information, and can take lots of damage. Apparently, they can still play even when smeared with butter - although we don't recommend it.

CD-G - CD GRAPHICS - An essential extra for your chosen player, so you can watch the band leap around while listening to your fave grooves.

CD-ROM - CD-READ ONLY MEMORY - The computer version of a Walkman. Contains lots of information but can't be written on like a floppy, unless you've got a marker pen. Acts like a glorified Hard Disk with a silver suit, however you need a computer to exploit it.

CD-I - CD-INTERACTIVE - The stand-alone system doesn't require a computer, since all the necessary hardware is inside. Unless you want a basic aesthetically pleasing box, you'll need some speakers and a decent television set. Graphics, sound, animation and video can all be relayed simultaneously in real time, or 'interactively' as the blurb goes.

CADDIES - A strange phenomena with most CD devices used outside the hi-fi field is the use of caddies. You can't simply insert your disk into the machine, but need to put them into a special box beforehand - designed for the maximum possible irritation.

APPLICATIONS - Frequently mentioned in CD blurb, basically these are atlases and encyclopedias, although you may find the occasional game listed there.

DIGITAL SOUND - Very high quality sound. Especially noticed when CD bores witter on about the quality of CD sonics.

DIGITAL VIDEO - A few frames of slick animation of VHS quality, without the problem of a big black tape and a sluggish fast forward.

REMOTE CONTROL - Sounds high tech and flasher than it actually is. In reality it's a real pain trying to line up your control panel with the infrared receptor.

FULL RANGE OF PORTS - Check these, and ensure you have a space for your headphones. Believe it or not, some CD units still don't include this fundamental item but include 'essentials' such as modem ports for home shopping.

And there are many more for you to take delight in discovering...

CD GAMES - THE NEW FRONTIER

At the moment the market for CD games can only be described as a tad limited. Commodore's CD-TV is fairly well supported in the UK and there are a fair few titles which have been converted to this format in order to keep people happy.

Games such as Lemmings from Psygnosis and Xenon II from the Bitmaps have been ported directly across with the only significant changes being in the sonics department.

The PC format CD games are also in a similar situation, whereby old games are simply shovelled en masse onto a whopping great memory capacity CD and sold all together. For example, it's possible to buy the first six Ultima titles all on the same CD!

The graphics and sound are all exactly the same, they're just bundled on a single high capacity disc. Thrilling or what? There are vast quantities of this 'shovelware' on the market and very few titles have any enhanced features.

They range from F-15 Strike Eagle II from Microprose to Life and Death from Mindscape, along with many others. However, they're nothing new and exciting are they?

Other more recent PC titles are look slightly more interesting. For example Sierra On Line has CD compatibility in some of its more recent VGA releases. Kings Quest V is one worthy of particular note because when the CD is being used all of the sound is dragged in from the disc.

All interaction with other characters is represented with speech rather than text, and when characters talk the sound from the CD is sync'd in with the animation of the faces. Flash or what, eh?

Likewise, Jones In The Fast Lane, Stellar 7 and Mixed Up Mother Goose also support CD-ROM in a similar way with some rather smart music and suitably atmospheric talky bits.

UP AND COMING TITLES

But what can we expect in the coming months? Well, it would appear that all the major software houses are preparing themselves for a positive spurt of CD releases in the early months of 1992.

For starters, owners of the CD-TV unit can expect a menagerie of re-releases to take advantage of all those lovely jubbly features.

US Gold has handed over loads of titles to the big boys at Commodore and you can expect things like Monkey Island, Loom and Indy and the Last Crusade to be storming over to your screens sometime in January.

Following this you can expect some of the



THE KREMLIN

Trivial Pursuit is going to be launched on the CDTV initially, although we are looking into other CD media such as the Sega. Trivial Pursuit is the most comprehensive CD product to date, with full animation and special effects, and everything is spoken in CD sound, recorded on high quality DAT tape.

Developing this product has taken 12 months. This isn't a shovelled piece of software, it is designed from scratch for the CD. Why? Because CD is such a new platform and is so powerful. When we started the design for Trivial Pursuit, we took our ideas from TV and Film, and not 'blinky-blinky' computer games, because CD has so much potential!

part from the imminent release of Xenon II, the Bitmaps have as yet no specific plans to produce any more CDTV titles. However, should the opportunity arise the likelihood is that it would be an original release as opposed to another re-release.

The CD version of Xenon II has come along quite a way from the original release, with all of the significant changes being made in the sonics department. The release version will have the 3D sound system that was previewed on Tommorow's World and this will include both 500k of sampled sound effects as well as 10 different Rythm King sound tracks.

Pieces of music have been contributed from Betty Boo, S-Express as well as Bomb The Bass who have been back into the studio to record six different remixes of the original Megablast track. To compliment this the game will also include proper speech in the shop section as well as a spoken word interactive manual.

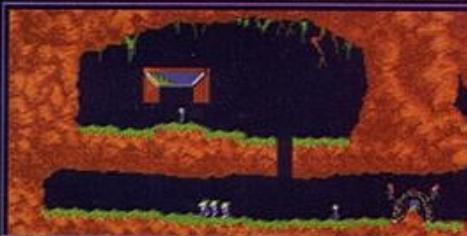
The Bitmaps see the biggest problem for CDTV producers being the cost of producing a suitable soundtrack. They see themselves as being lucky considering they have record company links, but other firms will have to license a soundtrack or pay an artist to go into the studio. This is very costly and will put many firms off production.

The new CD formats coming out will all benefit from each other as cross development is a very viable option for software houses. One of the big advantages of CDTV though, is that it's still basically an Amiga and there are loads of programmers out there who know the system inside out.

excellent Delphine titles to follow such as Another World, Cruise for a Corpse and Operation Stealth.

Accolade is set to unleash a very impressive golf game on CD-TV under the banner of Jack Nicklaus Golf. This apparently incorporates over 14,000 digitized photos to give a truly realistic impression of yourself roaming around a world class golf course.

Psygnosis is getting all excited about this new medium, and we can expect some pretty natty stuff from these lads. A new release called Microcosm, a



Oh Yes! It was inevitable that those suicidal little creatures would appear on CD and with their new sound effects should cause even more gamer heartache!

sort of 3D 'Fantastic Voyage', looks set to thrill the games playing public.

Embark on a journey through the human body in true Asimov style, deal with germs and bacteria as you travel through digitized locations modelled on real internal human gooey bits. Euch!

THE SPOKEN WORD

Other titles in the pipeline are Falcon from Mirrorsoft which will include background radio chatter and snazzy music, as well as a totally redesigned version of the excellent MIG 29M Super Fulcrum from Domark.

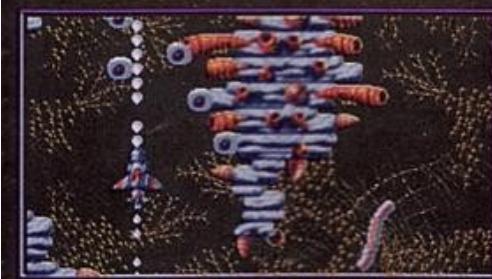
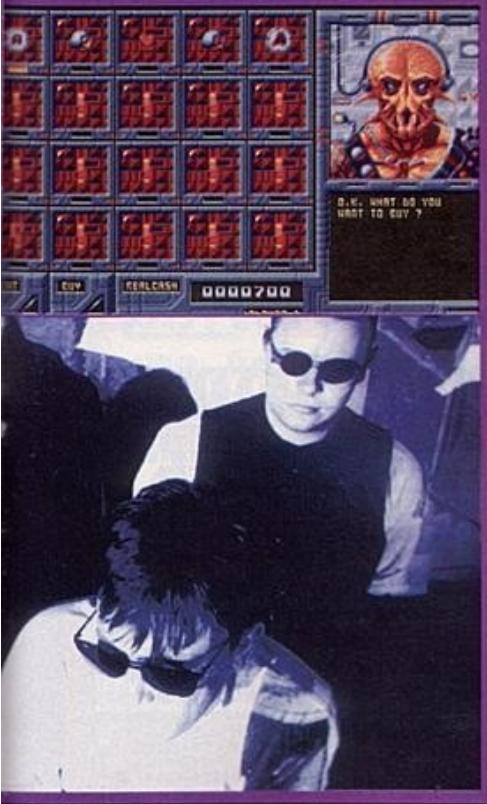
On the PC side of things we can expect all sorts of lovely goodies. For starters the wondrous 20 meg classic Wing Commander II is set for release, and although basically serving as a hard disk space saver some of the new features look set to be even more stunning than the original floppy disk version.

All the text from the original version is now spoken by different actors and you have suitably heroic sounding American accents for the good



BITMAP BROTHERS





Bomb the Bass' famous soundtrack should be fantastic, and that's without the six new re-mixes they've just been in the studio to produce

guys and your typical demonic villainous snarls for the baddies.

Along with this you can expect a fairly snazzy version of Battle Chess to appear from Interplay through Electronic Arts. The CD version of this classic will include over 2mb of animation code for each individual chess piece as well as digitized music and speech throughout the game.

However, the real biggie that everyone is waiting for with bated breath is a mega project from Virgin Games. Developed using multiple 486 PCs working concurrently, the new title, known simply as Guest, is a 3D adventure in a haunted house.

All of the graphics have been developed using some rather flashy CAD packages to give a truly amazing ray-traced solid 3D environment. The game is currently pencilled in for a 1992 release.

On the console front it's difficult to tell just how the UK market will react. Seeing as the Famicom, or Super NES, hasn't even been officially launched in the UK yet, I can't honestly expect the Philips/Nintendo CD collaboration to emerge for some considerable time.

However there can be absolutely no doubt that when the games do eventually emerge they will be of the very highest quality.

On the Sega front there is considerably more activity due to the fact that the unit has just had its US release. Games such as the amazing Hard Nova are already causing quite a stir, with its Final Fight size sprites coupled with Prince of Persia quality

animation and amazing music composed by some suitably famous Japanese rock group.

The only console CD standard which appears to be established anywhere in the world would appear to be the NEC unit for the PC Engine. In Japan it is certainly the most popular unit and there are many titles already available for it.

Unfortunately, the problem is again that the basic PC Engine has yet to be officially released in the UK, so you'll have to contact people like Console Concepts or KC's if you want to get hold of a unit or any of the flashy games that are available.

COMPARE AND CONTRAST...

So does CD technology have a place in the games playing future? At the moment it's difficult to see which of the formats will stand the test of time. Obviously the CD-ROM on the PC is currently the most popular but it's doubtful whether this is going to last through the decade.

At present it is being used mainly as a hard disk space saving medium for titles which would normally be installed and take up loads of space as a result. For games like Kings Quest V or Wing Commander it's great because you save multiple megabytes of disk space leaving you with loads of extra room.

On the other hand, CDTV looks potentially like a really great idea. Unfortunately, what we've seen so far isn't all that impressive, although the new year looks set for lots of new titles such as Xenon II and Trivial Pursuit to be introduced.

The big advantage of CDTV is that it's basically a well established system that developers are already used to and shouldn't have too many problems converting titles for. Unfortunately expense is a major factor, and the average kid in the street is going to have problems lashing out nearly £500 for a usable system.

INTO THE FUTURE

This brings us to the more futuristic systems on offer from the console manufacturers and those pioneering the wonder format - CD-I.

Both Sega and Nintendo are hoping to enamour the world with their CD interactive multi-media systems and both seem to be scrabbling to get the most impressive system on to the market.

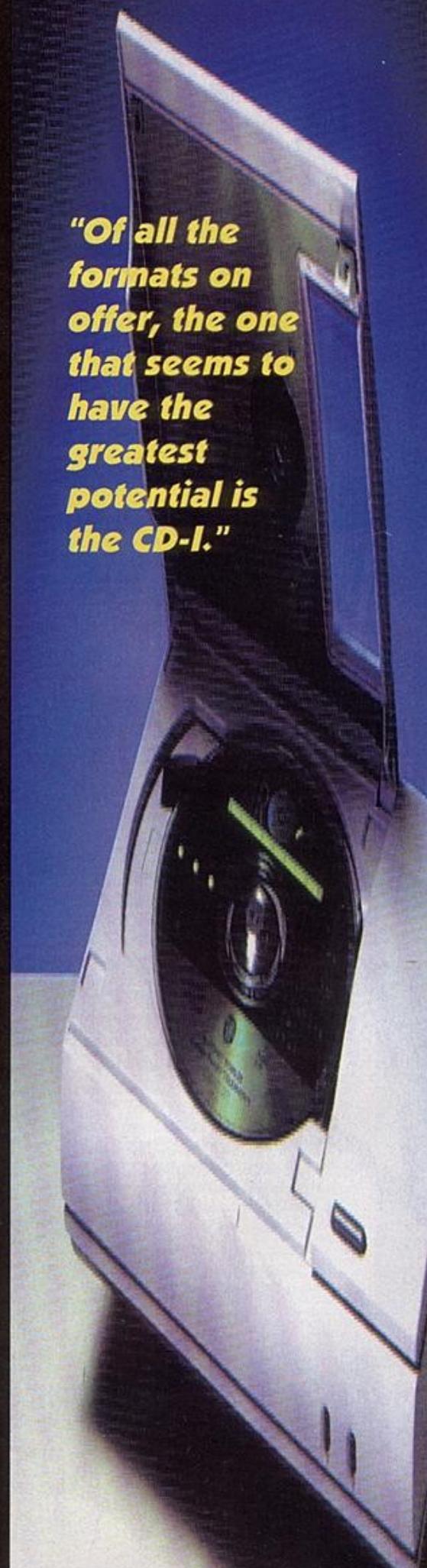
Nintendo are currently being very quiet as to the specifications of their Philips collaboration, but the Sega unit looks like it could be quite incredible! Being more than just a CD unit the added scaling, rotation and sprite manipulation capabilities mean that this is going to be a force to be reckoned with.

Of all the formats on offer, the one that seems to have the greatest potential is the CD-I. With its real time interactive CD access, this looks to be the most promising multimedia product. Similar in approach to the CDTV this is the best of the stand-alone units and just as soon as some of the software houses dabble in the pleasures of interactive CD I'm sure this will really take off.



The one they're all waiting for. Guest utilises the latest CAD graphics and is currently being designed on linked 486 PCs. The result should be stunning!

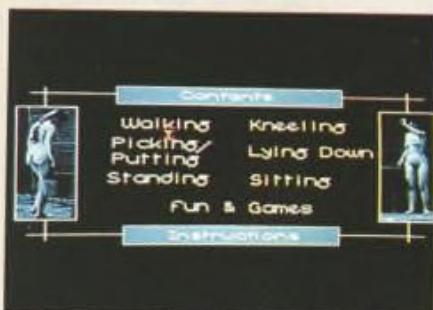
"Of all the formats on offer, the one that seems to have the greatest potential is the CD-I."



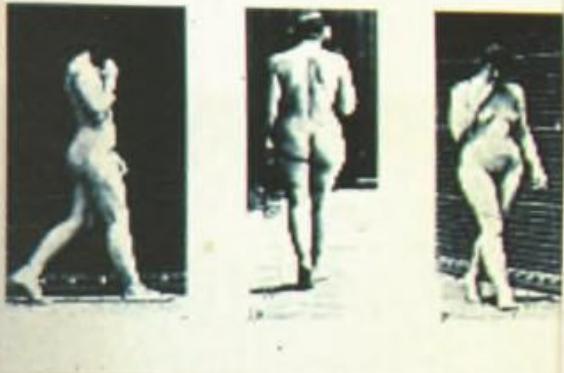
AMIGA UPGRADE

The CDTV Amiga upgrade looks rather like the old C64 disk drives: a cream coloured box with a slot for your CD in the front. It will enable Amiga owners to play all CDTV software, though rumour suggested you might have to pay extra for the infra-red controller if you wanted to abandon your keyboard. Price for the unit has not yet been announced but could be high: maybe as much as £299. Commodore claimed the unit on show was the finished version and that supplies should be available in the UK this summer.

The Cautious Condor and its owner are shamelessly modelled on Howard Hughes and the Spruce Goose.



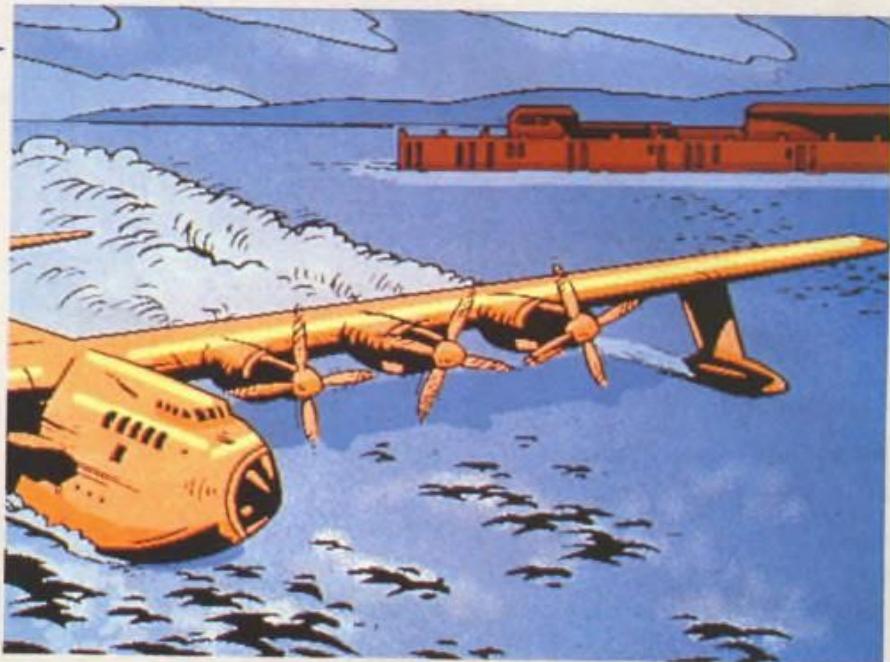
Clement Chambers is at it again. CRL boss Clem obviously thought long and hard about how to get naked women onto the screen in the best possible taste. He ended up by using his own production utility DUNE (covered in ACE 30) to provide an animation database of early cinematographer Muybridge's naked women. Er..thank you.



1 1991 looks like being the year when CD software finally takes off. CDTV is now a certainty for a spring launch (barring acts of God and bankers), NEC are achieving an ever wider user base for their PC Engine CD software, the FM Towns continues to attract developers despite a tiny 70K user base in Japan, and Nintendo did nothing to quell rumours of a cheap CD-ROM add-on for the Super Famicom.

Other rumours included a forthcoming FM Towns launch in the US and Europe, based on the machine's PC capability and an alliance with Microsoft. Those with money in their pocket can look forward to the possibility of buying a Towns complete with Windows 3, superlative graphics, and a whopping great price tag in late 1991 or early 92.

Nobody was particularly excited by all this but, perhaps better, everyone owned up to a firm conviction that not only was CD



CD Countdown

CDTV, a CDTV upgrade for Amiga 500 owners scheduled for summer launch, and oodles of software were all on show at CES. These are the sort of titles that Amiga and CDTV owners could be getting their teeth into in just a few weeks from now...



Lawrence Productions McGee takes a Cosmic Osmo approach to children's entertainment. You can guide McGee around his environment and get him to perform certain actions simply by clicking on one of the option icons. In this case, we've sent him to the toilet, but he is politely gesturing for us to leave the room before he gets down to business.



Commodore have redesigned the user interface for the CDTV to cater for all linguistic groups. There's also a very attractive audio CD control panel featuring all the usual high-end CD utilities (shuffle, loop, time elapsed etc)



There's no animation in the *Cautious Condor* and no digitised graphics. Ah! What a relief!



The World Vista Atlas gives you that oft-quoted facility to spin the globe, zoom in on a continent, zoom in on a country, and then finally zoom in on a specific area for geographical information. Only CD storage capacity can give you this!

Every character, scene, and object you encounter could be significant. There is no guarantee that your travels will reveal sufficient evidence to make a successful accusation...

Trk	Chnl	Prgr	Nm
1	82	2	Bass
2	83	7	Electric Piano
3	84	5	Synth Bells
4	85	51	Strings
5	86	66	Guitar 1
6	87	60	Guitar 2
7	88	27	Horns\Brass
8	89	82	Sax Solo
9	90	-	Drums & Perc
10	91	-	Cabasa (M3)
11	92	-	Tambourine (F3)
12	93	39	Side Stick
13	94	33	Print Melody
14	95	67	Print Piano
15	96	69	Print Bass

Yes I swear it's the truth

SOUNDS FAMILIAR?

Movie buffs may like to know that one of the voices in the *Cautious Condor* is done by an actor from the cult movie *Surf Nazis Must Die*. A small prize to the first person (if anyone!) who can let us know which voice it is...

the way to go, but that we'd be going that way during the year, with a mass CD software market now only two to three years away.

And, putting their money where their mouths are, the software companies responded by showing more CD product than ever before...

WILD BIRD YONDER

Star of the CDTV show was Tiger Media's *Case of the Cautious Condor*. Set in 1937 it takes a classic Agatha Christie approach to detection as you guide a detective from one location to another on board the *Cautious Condor* flying boat following the murder of the owner's son.

'Structurally,' explains TM's boss Laura Buddine, 'it's a maze in time and space. The model for the game was taken from an interactive theatre group in the States who stage events in houses to which the audience is invited. You wander from room to room and scenes are taking place all over the place. Your experience differs according to which rooms you visit.'

There are three hours of audio visual material on the disk, but playtime is limited to 30 minutes – approximately the time the detective has to solve the murder, so the game is almost a real-time experience. There are 15000 paths through the game and only one solution – despite the fact that the game has already been available for some time on the Towns and Tandy CD PC, TM know of only one successful solver. The solution can only be had when your detective (who is intelligent and remembers



CD+G enables you to display simple graphics and text while your commercial CD+G audio disk is playing. In this case it's being used with the CD+G+MIDI function, showing you which MIDI channels are being used by the current disk and – at the bottom – which vocals are being sung. Result – you can not only singalong Karaoke style but can also change the orchestration by finding the MIDI track into your synth and getting CD audio, synth, and your own voice all working together!



Our House gives you a chance to move through time and space as you not only explore a house but also get the chance to see and hear what it must have been like in other historical periods. For example, we can click on the stove in the kitchen (as here) and not only get information on how it works but also see stoves from other time periods by clicking on the icons for different human generations at the bottom of the screen

everything he sees) has enough evidence to make a correct accusation.

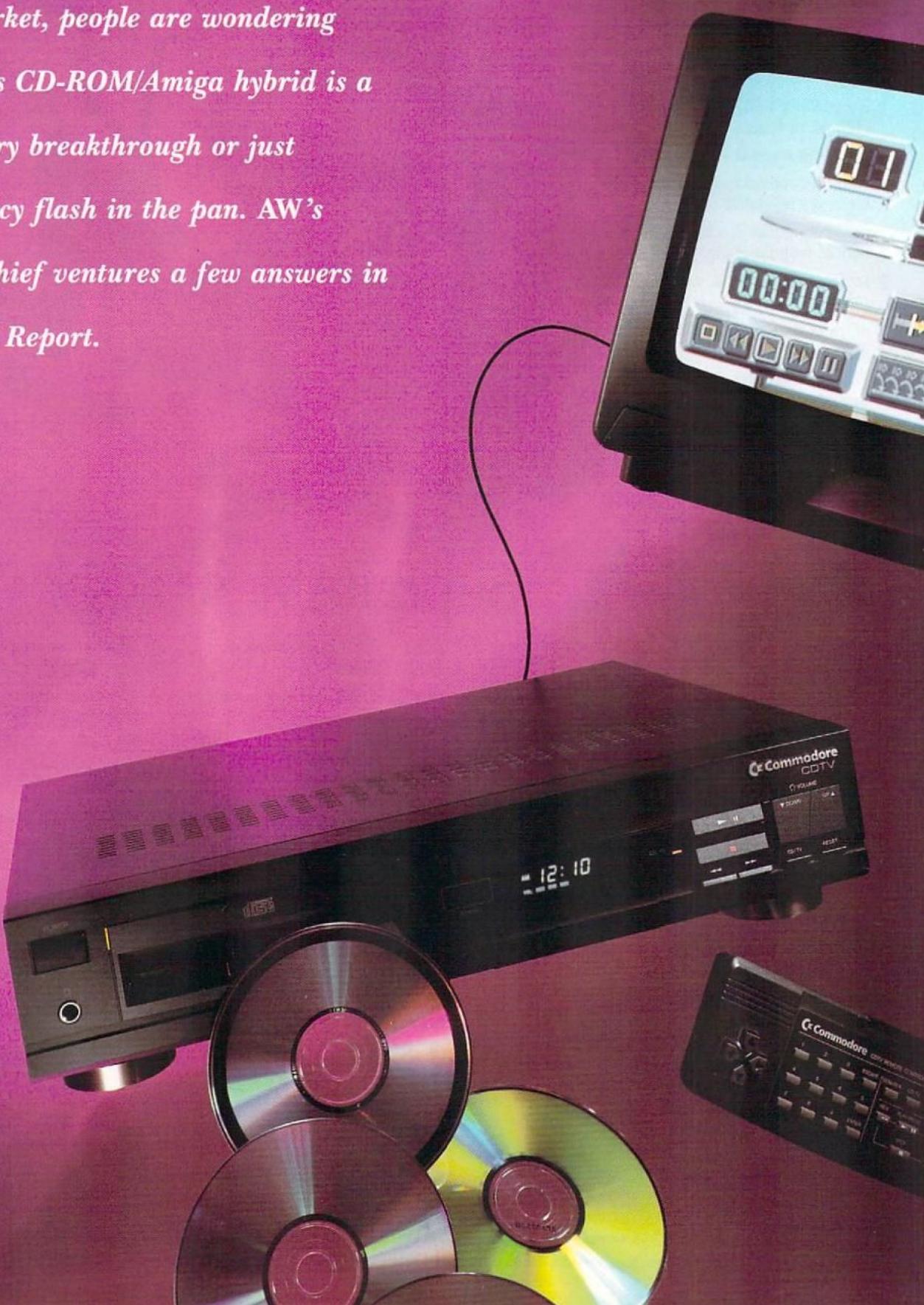
Interestingly, TM have avoided animation. They were already tight for space (yes, tight – even on CD) and decided instead to concentrate on creating a 1930's comic strip atmosphere with hand-drawn graphics. For this reason, they also abandoned the idea of digitised graphics: 'These would have been cheaper for us,' claims Laura, 'but we kept thinking that digitised realistic graphics would actually have begged the question as to why things weren't moving. We abandoned the animation because we wanted to do a good game, not bad TV!'

Hmmm...we reckon that's an acute observation that a lot of other CD developers could and should take note of.

The audio track uses a dozen actors from an American troupe that specialise in recreating 30's radio drama. All of the SFX were generated by traditional radio techniques (fiddling around with bowls of water etc) rather than by synthesis.

This game doesn't break any technological barriers. Instead, it's set out to achieve perfection of its own kind, and undoubtedly succeeded. Check out the screenshots for a glimpse of some other CDTV products...

As Commodore's long-awaited interactive multimedia system for the home finally hits the market, people are wondering whether this CD-ROM/Amiga hybrid is a revolutionary breakthrough or just another fancy flash in the pan. AW's Editor in Chief ventures a few answers in this Special Report.



CDTV

BIRTH OF A NOTION?

By Doug Barney



ike D.W. Griffith's seminal film 75 years ago, Commodore's CDTV could represent a similar pioneering effort in a different medium. The interactive CD-ROM system, which marries CD-ROM and Amiga technologies, just might be the ticket that raises "multimedia" from hyped-up buzzword to living-room byword.

It's taken the wizards from West Chester a while to deliver the goods: *AmigaWorld* first brought you the news about CDTV in an investigative story that graced the cover of our July 1990 issue (see "Million Dollar Baby," p. 18). Commodore called it "The Baby" then, and while 11 months is a tad longer than the normal human gestation period, the company finally began rolling out CDTV in selected markets just as we were getting this issue ready for press.

Throughout the long delivery, Commodore has been diligently refining (read "finishing") the product. Also during that time, the company lined up scads of developers (see the "Buyers Guide to CDTV Titles" accompanying this article), nailed down distribution through retailers such as Montgomery Ward and Macy's, set a suggested list price of just under a grand (\$999), and, finally, polished off the product. ►

In order to have enough time to do a full-scale, hands-on review of CDTV for this issue, however, we were forced to use a very late-model prototype and an array of equally late beta software. In addition, we received one final operating-system upgrade in the middle of writing the article!

HYBRID VIGOR: HIGHLIGHTS OF CDTV

While some things have been altered, the basic hardware behind CDTV (Commodore Dynamic Total Vision) has not changed much from what we described 11 months ago. It is still a CD-ROM player tied into a 7.16 MHz 68000-based A500. The front panel includes mainly standard CD functions (Play, Pause, Head-Phone Jack, and so forth), plus a port for the Personal RAM card (see the "CDTV Options and Accessories" sidebar). Meanwhile, the back is jammed full of ports and plugs that computer users around the world generally love to see. There are parallel and serial ports, a floppy drive, keyboard and remote mouse/joystick ports, audio out, MIDI in and out, and an array of video outputs, including RF, Composite color video, Digital and Analog RGB, and S-Video (supporting PAL and NTSC). Also on the back are a DMA expansion slot and a video slot.

The system still comes with one megabyte of RAM, which limits the amount and quality of either animation or video, but keeps the price down to a reasonable level.

Although CDTV uses the tried-and-true A500 as its base technology, it is shockingly and purposely unlike any computer ever made. As you can see from the photo on the opening page, the physical device is decidedly uncomputer-like. A key difference is the 28-button hand-held remote device that handles all control functions. Unfortunately, its four-button cur-

sor does not allow for the fine control possible with a mouse, making intricate menus and drawing out of the question. (Commodore will, however, offer a remote-control mouse later this year—see the "Options" sidebar.)

In general, the remote device offers fewer choices, and it will take a bit more time to achieve the desired result. But those intimidated by the complexity of a VCR, or scared stiff of computers, will appreciate the total shielding of all computer elements.

With the remote, users also gain tremendous freedom. There is simply no cord binding you to your computer. When you sit back in that easy chair, soda in hand, and start moving through screens, the advantages really sink in.

Another advantage of CDTV is its ability to play the rare (there are only about 30) but interesting CD+G (Compact Disc Plus Graphics) discs. These CDs include graphics that are played on a television. We're not exactly talking rock video here, but the images do add flavor to the musical content. Currently available titles include Fleetwood Mac's "Behind The Mask," Little Feat's "Hoy, Hoy" and "Representing. . .," Jimi Hendrix Experience: Smash Hits," Bonnie Raitt's "Green Light," and Talking Heads' "Naked"—with a little classical, folk, and jazz thrown in as well.

For playing standard CDs, Commodore has added a slick graphical interface. You control the CD by poking buttons on the remote device. Then you see an animated representation of the portion of the CD that is played. In addition to programming the sequence of cuts or skipping through tracks, the interface gives you the ability to preview the first ten seconds of each song, as well as to control the CD+G and CD+MIDI function. By the way, the MIDI func-

Continued on p. 28.

CDTV Options and Accessories

TO MAKE CDTV more useful and more versatile, Commodore plans to introduce a number of special accessories throughout 1991. Perhaps of most interest to current Amiga owners will be the one scheduled to appear first, which is also the first item on the following list:

A690 CD-ROM Drive — Already exhibited at CES and carrying a \$699 suggested retail price tag, the A690 should be shipping not long after you read this. It attaches to the A500's expansion bus and plays any compact disc, including CDTV. Commodore is also supposedly developing interfaces for the A2000 and A3000 so that these systems can run the drive sometime in the future.

Video Genlock Card — Allows you to combine CDTV visuals with video from a video camera, videotape, or live television. You can switch among video-only, CDTV-plus-video, and CDTV-only genlock modes. There is already a genlock button on the standard CDTV remote control.

Remote-Control Mouse — A two-button model that provides real mouse control over the CDTV player without wires or cables. Will allow the kind of control not presently available when operating CDTV painting and drawing titles.

Trackball Controller — Increases speed and control for fast interactive multimedia titles. Has dual joystick connectors and operates by either an

infrared remote control or a plug-in cable that is provided.

Personal Memory Card — Provides an easy way to save information for later use for such CDTV titles as games (save a position), paint programs (save an image), and reference discs (save a text excerpt). In 64K and 256K versions.

Game Controller — An infrared transmitter "brick" with ports for wired joysticks.

Bookshelf Speakers — For better sound quality, this pair of stereo speakers comes with built-in audio amplifiers.

So What "Titles" Are on "Disc?"

RIGHT. REMEMBER, THEY don't call them programs—they're titles. And it's a "c" not a "k" on the end of dis round thing I'm holding between my fingers.

Because developers were scrambling to put the finishing touches on many of the titles in time for the CDTV roll-out, I was able to sample only a small number of applications (but quite a larger number of standard CDs—all of which played quite nicely). Besides the seven discs reviewed below, there are descriptions in the buyer's guide of nearly 25 other current titles, plus a list of over 50 additional titles announced for later in 1991.

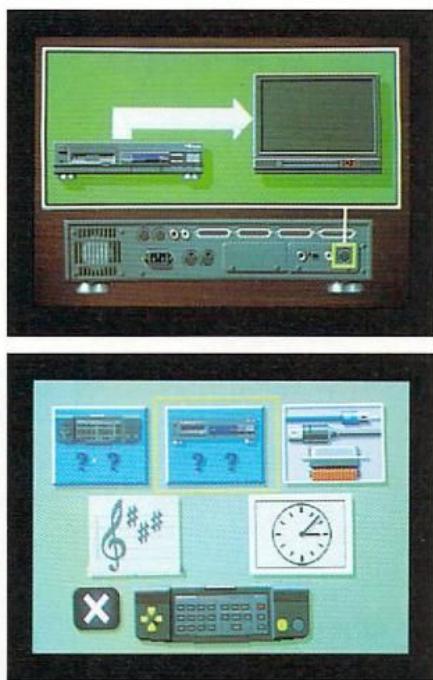
Playing CDTV titles is the opposite of using standard computer software. Most computer software waits for the user to provide data and then helps to sift, manipulate, and form the information. CD-ROM "software" provides the information, which the *user* can then sift, manipulate, or form.

The first disc you'll play is a freebie. In fact, it's actually the CDTV documentation. Not knowing that at first, I called Commodore's Gail Wellington to ask about docs. She replied, "Look in the box for **The Welcome Disc**."

Sure enough, it tells you—through images, animation, sound, and words—what CDTV is all about and how it works. This is the perfect approach for a living-room computer, because you would probably wind up throwing out the manuals with old copies of *Sports Illustrated* and *Cosmo* the next time you cleared off the coffee table.

Next on my trial run—and one of the best of my tiny bunch—was **World Vista Atlas** (\$79.95) from Applied Optical Media. Similar to PC Globe for the IBM and Mac, World Vista teaches geography in a visual, interactive manner.

Unlike PC Globe, however, which uses conventional computer-style pull-down menus, World Vista uses a friendlier, kiosk-style interface. Instead of computer-generated, undetailed maps, it offers actual scanned maps the user can navigate through. More importantly, World Vista adds the richness of sound, which helps teach about different cultures through music and language. The cultural side



Even the documentation for CDTV is a CD—an interactive tutorial called *The Welcome Disc*.

is topped off with photographic images of the country along with descriptions of what you are seeing. It is obvious that Applied Optical took full advantage of CD-ROM's half-gigabyte-plus (550MB) mass-storage capacity. In human terms, that means that a single disc can store up to 250,000 typewritten pages!

Also in my personal CDTV starter kit was Xiphias' **American Heritage Illustrated Encyclopedic Dictionary** (\$69.95), which was not quite as suited to the CDTV remote device as *World Vista*. For applications such as this, a remote keyboard (promised by Commodore sometime in 1991) would be a welcome addition.

The 3000 color illustrations, automated word pronouncer and speller, and "hot-word" reference feature, however, all make good use of the strengths of both CD-ROM and Amiga-graphics technologies. The results are fuller, richer definitions of more than 180,000 words.

FUN AND GAMES, TOO

To keep our hard-charging reporter from getting bored, Commodore sent **Airwave Adventure: The Case of the Cautious Condor** (\$49.95) from Tiger

Media. This adventure game was designed from the ground up for interactivity and takes excellent advantage of CDTV's sound capability and storage capacity.

You have 30 minutes to solve a murder mystery on board the maiden voyage of a 1937 luxury liner. With countless story possibilities and myriad images, however, it is a game that can be played over and over in many different variations.

For the younger set, there is Multimedia Corp.'s **A Bun for Barney** (\$49.95) title (and, remember, that's "bun" not "pun"). Narrated by Tom Baker, who plays Dr. Who on the PBS show of the same name, this is a terrific animated interactive children's book. Users (ages 3–6) can choose to simply go through the story or to combine the story with games. Choosing the game style, the child can move the pointer to various parts of the screen to make bears pop up, birds flutter, and squirrels appear, or to invoke simple and fun guessing games. The imagery is first-rate, the interactivity excellent, and the sound even better.

Back on the reference side, **Dr. Wellman: Family Health Adviser** (\$79.95) from Commodore's own CDTV Publishing unit, is an interactive primer on health. Although the program lacks the depth of a *Gray's Anatomy* or *Merck Manual*, it is quite easy to push-button your way to a better understanding of medical matters and to better health for you or your child. It includes information on traveling to various countries, exercise, first aid, alternative medicine, and many more health topics.

From Xiphias' **Time Table of History** series, **Science and Innovation** (\$59.95) makes excellent use of the Amiga's and CDTV's image handling. One can explore economic trends through simple graphs, read about the Big Bang, reminisce about the 1977 launch of the Commodore PET, put the Babylonians in historical perspective with a timeline, or see the famous photograph of the young Chinese student who stopped a tank on its way to Tiananmen Square. Audio presentations for key events and "hot-word" interactive referencing further enhance the program's appeal. □

—DB

Buyer's Guide to CDTV Titles

The titles presented here are currently available or slated to appear by the time this guide is published. A brief list of other titles expected later on in 1991 is also included.

A list of CDTV developers with addresses and phone numbers is also contained in the guide. In addition, you may contact Commodore (see under "CDTV Publishing" in the list of CDTV developers) for product and ordering information about any of these titles.

Titles are grouped under five major headings: Arts & Leisure, Education, Entertainment, Music, and Reference.

ARTS & LEISURE

Advanced Military Systems

Dominion Software

\$39.95

For the armchair warrior, the newest and most advanced military hardware is featured in over 1500 action photographs accompanied by music and narration.

Women in Motion

On-Line Entertainment

\$49.95

Photography genius and motion-picture pioneer Eadweard Muybridge's Women in Motion is an encyclopedia of movement based on some of the great historic photos of the 19th century. You can examine each frame of animation, print it, or load it into a paint program.

EDUCATION

A Bun for Barney

Multimedia Corp.

\$49.95

Featured in the "Titles/Disc" sidebar.

Barney Bear Goes to School

Free Spirit Software

\$39.95

A two-part learning game that combines colorful, animated graphics and "multitrack" sound. Includes spelling and counting games, color and shape identification, and a coloring book. Ages 2-6.

Fun School 3

Database Educational Software

49.95

Consists of six educational activities that help to develop many skills, including number,

shape, and word recognition. Colorful pictures, animations, and sounds. Ages 3-5.

LTV English

Jeriko

\$49.95

Helping people to learn English as a second language, LTV provides more than 30 situations and 150 exercises designed to improve oral comprehension for many levels of competence. Teens through adults.



Dr. Wellman: First-aid remedies and health tips.



Preschoolers should get a kick out of CDTV, too.

Mind Run

CDTV Publishing

\$39.95

An entertaining interactive set of exercises to test your intellectual aptitudes and to sharpen your capabilities in memory, stress, listening, reflexes, logic, and understanding of machines. Children, teens, and adults.

Mud Puddle

Discis

\$49.95

In order to escape the mud puddle that is chasing her, Julie Ann must outsmart it. A kinder, gentler approach to inculcating the values of cleanliness and tidiness. Ages 6 and up.

My Paint

Saddleback Graphics

\$39.95

An easy-to-use, classroom-tested paint program based entirely upon intuitive symbols. Features include colorful animated symbols for all tools, a "coloring" book of over 100 pictures, sounds, special effects, and more. Ages 3-9.

The Paper Bag Princess

Discis

\$49.95

A fairy tale with a contemporary twist: The princess is the heroine who saves the prince from the dragon. Being a modern couple, however, they don't live entirely happily ever after. Ages 6 and up.

Scary Poems for Rotten Kids

Discis

\$59.95

Traditional fears of the dark or of monsters are not the only ones faced by today's children. Environmental dangers, war, and the like are also part of the new things that "go bump in the night"—as these poems will attest. Ages 8 and up.

The Tale of Peter Rabbit

Discis

\$59.95

Beatrix Potter's universally loved tale of naughty Peter's escape from Mr. McGregor's garden has a timeless appeal for all small children—and many adults! Ages 5 and up.

Thomas' Snowsuit

Discis

\$49.95

Getting Thomas to put on his snowsuit was an impossible task for all the adults, but he quickly jumps into the suit when a friend comes to invite him out to play. Ages 5 and up.

ENTERTAINMENT

All Dogs Go to Heaven

Merit Software

\$49.95

Transform your TV into an electronic coloring book with 30 coloring-book pictures, spoken words, and songs telling the story of Don Bluth's roguish German Shepherd, Charlie B. Barkin.

The Case of the Cautious Condor

Tiger Media

\$49.95

Featured in the "Titles/Disc" sidebar.

Classic Board Games**Merit Software**

\$49.95

Chess, checkers, and backgammon vs. a human opponent or your CDTV player—at several levels of difficulty.

Psycho Killer**On-Line Entertainment**

\$49.95

An interactive thriller game with real actors and a live locale. Play well...or else!

Snoopy: The Case of the Missing Blanket**The Edge Interactive Media**

\$49.95

Help Detective Snoopy find Linus' missing blanket in this interactive cartoon game.

Wrath of the Demon**ReadySoft**

\$49.95

This 3-D graphics adventure pits you against the Demon to save a princess and her father's realm.

Xenon 2: Megablast**MirrorSoft**

\$49.95

A remixed, remastered version of the arcade hit Megablast in full "3-D sound."

MUSIC**Music Maker****CDTV Publishing**

\$49.95

Learn to play music in minutes—with 17 song tracks and more than 40 instruments. Three different skill levels.

REFERENCE**The American Heritage Illustrated Encyclopedic Dictionary****Xiphias**

\$69.95

Featured in the "Titles/Disc" sidebar.

Complete Works of Shakespeare**Animated Pixels**

\$49.95

All the Bard's plays, poems, and sonnets collected on one disc—with illustrated scenes from original woodcuts. Reference utilities include an automatic word/phrase look-up and a complete concordance.

Dr. Wellman Family Health Adviser**CDTV Publishing**

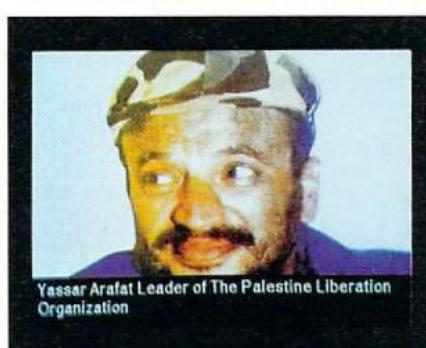
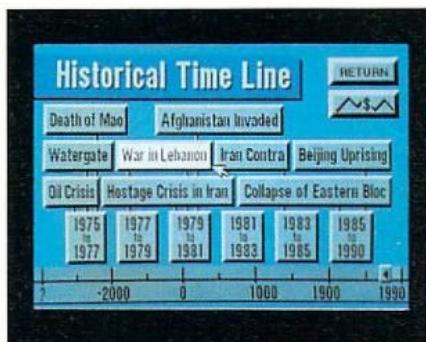
\$79.95

Featured in the "Titles/Disc" sidebar.

Fred Fish Collection**HyperMedia Concepts**

\$69.95

The entire 410-floppy-disk Fred Fish library of freely distributable Amiga software on one CD. More than 46,000 separate files.



The **Time Table of History** uses pictures, text, and sound and lets you zero in on events with its timeline feature.

The Illustrated Holy Bible**Animated Pixels**

\$49.95

The complete texts of the Old and New Testaments with full-color illustrations. Includes a slide-show option and search facilities.

The New Basics Electronic Cookbook**Xiphias**

\$59.95

1800 entries from the Silver Palate library of recipes—with more than 450 full-color photos.

Time Table of History:**Business, Politics, and Media****Xiphias**

\$59.95

More than 6000 stories, thousands of quotes,

images and reproduced documents, and audio effects and narration tell the story of the quest for wealth, power, and knowledge.

Time Table of History:**Science and Innovation****Xiphias**

\$59.95

Featured in the "Titles/Disc" sidebar.

World Vista Atlas**Applied Optical Media**

\$79.95

Featured in the "Titles/Disc" sidebar.

Future Titles**Arts & Leisure**

Animated Coloring Book (Gold Disk)

Dinosaurs for Hire (Wright Enterprises)

Gardenfax Series (CDTV Publishing)

Guinness CDTV Disc of Records (CDTV)

Ninja High School Comix (Wright)

Our House (Context Systems)

Education

A Long Hard Day on the Ranch (Discis)

Cinderella (Discis)

Fun School: 5-7 (Database Software)

Fun School: Over 7's (Database Software)

Heather Hits Her First Home Run (Discis)

Mickey's 1 2 3's (Walt Disney)

Moving Gives Me a Stomachache (Discis)

North Polar Expedition (Virgin Mastertronic)

The Tale of Benjamin Bunny (Discis)

Entertainment

Air Traffic Controller (Logic Plus)

Angel of the City (Tiger Media)

B.A.T. (UBI Soft)

Basketball (Context Systems)

Bill and Ted's Excellent Adventure (Capstone)

Blockbusters (Domark)

CDTV Sports Football

(CDTV)

Cardinal of the

Kremlin

(Capstone)

>

Buyer's Guide, continued

Dominion (Dominion Software)	Murder off Miami (Domark)	Music
Drakken (Infogrames)	Pro Tennis Tour II (UBI Soft)	CDTV Disc Jockey (Sassenrath Research)
Dungeon Master (FTL Games)	Secret of Monkey Island (CDTV)	Musicolor (Virgin)
Falcon (Spectrum Holobyte / MirrorSoft)	Sherlock Holmes, Consulting Detective (Icom Simulations)	
Future Wars (Interplay Productions)	Sim City (Maxis)	Reference
Herewith the Clues (Domark)	Spirit of Excalibur (Virgin)	American Vista Atlas (Applied Optical Media)
Horse Racing (Context)	Spy vs. Spy (CDTV)	Family Drug and Poison Information (NE Louisiana University)
Indiana Jones and the Last Crusade (CDTV)	Terminator (Bethesda Software)	Living Book Series (Digigraphic)
Indoor Sports (Context)	Trivial Pursuit (Domark)	New Grolier Electronic Encyclopedia (CDTV)
Jack Nicklaus Golf (Accolade)	Trump Castle (Capstone)	Time Table of the Arts (Xiphias)
Loom (CDTV)	Unreal (UBI Soft)	
Many Roads to Murder (CDTV)	Wayne Gretzky Hockey (Bethesda)	

CDTV Developers

Accolade
550 S. Winchester Blvd.
San Jose, CA 95128
408/985-1700

Animated Pixels
Albemarle House
Osborne Rd.
Southsea, Hants.
PO5 3LB, UK
0705-733588

Applied Optical Media
18 Great Valley Pkwy.
Malvern, PA 19355
215/889-9564

Bethesda Software
15235 Shady Grove Rd.,
Suite 100
Rockville, MD 20850
301/926-8300

Capstone
14160 S.W. 139th Court
Miami, FL 33186

CDTV Publishing
1200 Wilson Drive
West Chester, PA 19380
215/431-9100

Context Systems
The Technology Center
333 Bayberry Rd.
Hatboro, PA 19040
215/675-5000

Database Software
Europa House
Adlington Park, Macclesfield,
Ches., SK10 4NP, UK
0625-859333

Discis Knowledge Research
45 Sheppard Ave. E., Suite 410
Toronto, Ontario
M2N 5W9 Canada
416/250-6537

Domark
Ferry House
51-57 Lacy Rd.
Putney
London SW15 1PR, UK
081-780-2222

Dominion Software & Design
3328 Oakshade Court
Fairfax, VA 22033
703/318-8270

The Edge Interactive Media
151 S. El Molina Ave.,
Suite 201
Pasadena, CA 91101
818/577-9375

FTL Games
6160 Lusk Blvd., Suite C-206
San Diego, CA 98121
619/453-5711

Free Spirit Software
58 Noble St.
Kutztown, PA 19530
215/683-5609

Gold Disk
5155 Spectrum Way, Unit 5
Mississauga, Ontario
L4W 5A1 Canada
416/602-4000
800/465-3375

Hypermedia Concepts
PO Box 85303
Racine, WI 53408
414/632-3766

Icom Simulations
648 S. Wheeling Rd.
Wheeling, IL 60090
708/520-4440

Infogrames
84 Rue de 1ier Mars
69628 Villeurbanne cedex
France

Interplay Productions
3710 S. Susan, #100
Santa Ana, CA 92704
714/549-9001

Jeriko
5 Boulevard Poissoniere
75002 Paris
France

Logic Plus
18 Whitesands Grove
MGR Park
Stoke-on-Trent, Staffs., UK
0782-398840

Maxis
1042 Country Club Drive,
Suite C
Moraga, CA 94556
415/376-6434

Merit Software
13635 Gamma Rd.
Dallas, TX 75244
214/385-2353

MirrorSoft
Irwin House
118 Southwark St.
London SE1 0SW, UK
071-928-1454

Multimedia Corp.
109X Regent's Park Rd.
London NW1 8UR, UK
071-722-7595

On-Line Entertainment
14 Falcon Way
Clippers Quay
London E14 9UP, UK

ReadySoft
30 Wertheim Court, Unit 2
Richmond Hill, Ontario
L4B 1B9 Canada
416/731-4175

Saddleback Graphics
3621 W. MacArthur Blvd.
Suite 119
Santa Ana, CA 92628
714/540-4062

Sassenrath Research
387 N. State St., Suite 200
Ukiah, CA 95482
707/462-4878

Tiger Media
5801 E. Slauson, Suite 200
Los Angeles, CA 90040
213/721-8282

Titus Software
28ter Avenue de
Versailles
93220 Gagny
France

UBI Soft
8/10 Rue de Valmy
93100 Montreuil Sous Bois
France

Virgin Mastertronic
18001 Cowan St.,
Suites A & B
Irvine, CA 92714
714/833-8710

Walt Disney Software
500 S. Buena Vista St.
Burbank, CA 91521
818/567-5360

Wright Enterprises
Hudson Rd.
Temple, NH 03084
603/878-1491

Xiphias
Helms Hall
8758 Venice Blvd.
Los Angeles, CA 90034
213/841-2790

From p. 22.

tion is a new addition to the original design, allowing MIDI devices to input to CDTV and vice-versa.

OUT OF THE BOX... AND INTO THE CHAIR

There are several options for hooking up CDTV. If you have an existing stereo monitor, you can simply plug in your CDTV audio cords and play away. This makes for a nice, compact desktop unit, although the sound quality cannot match a typical home stereo.

Commodore assumes that most of you will hook CDTV up to your TV set, using the supplied RF Modulator, with audio then going through your stereo system. This clearly yields the best sound quality and also puts CDTV where Commodore wants it—right in your living room!

If you don't have a stereo in your living room, you can connect CDTV directly to your TV, although the sound quality leaves a bit to be desired—at least with the TV I tried.

Once you've set up your system, you will be in for a treat when it comes to operating it. CDTV defines a whole new style of computer interface—one that is more kiosk-like than computer-oriented. Because the unit is meant to be commanded by an individual sitting on a couch using a low-res pointing device, all menus are simple and clear, all fonts are quite large, and all screens are decidedly uncluttered.

Basically, you navigate through a series of large boxes—pushing "A" to advance, select, or enter, and "B" to go back. Although there is an enter button, it is used only to save information to bookmark memory (about 2K of memory used for such small tasks as saving a place in a game) or to confirm an "A" command. There is also an escape button, but this is used primarily as a help key. In joystick mode, "A" acts as the firebutton.

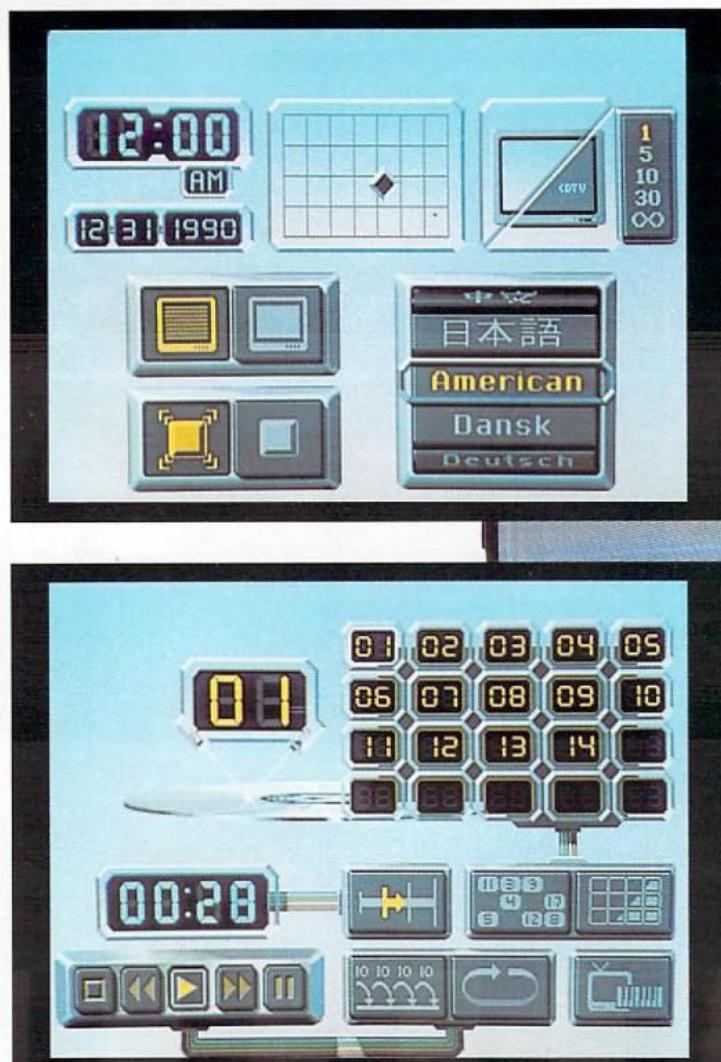
Commodore provided CDTV developers with interface guidelines stricter than any imposed on Amiga software. The goal of these guidelines is not just ease of use, but also uniformity in look and feel. One problem developers must overcome, however, is the slowness of the CD drive. Each program must inform the user when a command has been accepted and is being processed; otherwise, the impatient user will continue to pound away at the remote.

Loading and unloading programs is about as simple as it gets. Simply pop the CD in to load or out to unload. CDTV reboots at each exit, and all applications are completely autobooting.

Because CDTV is not marketed primarily as a computer, there is a wealth of new terminology to describe common computer functions. For instance, peripherals are "accessories," boot becomes "start," cursor becomes "pointer," icon becomes "symbol," RAM becomes "memory," and software—as you'll be reminded many times in the sidebars and buyer's guide—becomes "title." Some terms, such as guru and directory, have been dispensed with altogether.

REPORT CARD

In terms of overall performance, CDTV garners mixed, but generally excellent, grades. Like any Amiga, the graphics, screen changes, and cursor movements have a nice snap. For those accustomed to speedy hard drives, however, the access time from the CD-ROM will seem a trifle slow. This is a problem with all CD-ROM devices, not just CDTV. As developers



"Interactive" is the byword of CDTV—with users choosing options from simple, graphical menus and control panels by using the remote controller.

learn a few more preloading and memory-saving tricks, their applications should become more lively.

For now at least, many people may find themselves pushing the buttons again and again to make sure they have properly issued their commands, which can sometimes take a few pounds. Applications such as Applied Optical Media's World Vista Atlas solves this input problem by issuing a solid beep when the key press has succeeded.

On the other hand, the combination of simple, bold graphics, near-photographic images, hand-held control, and CD-quality sound is quite remarkable—regardless of speed.

CDTV could represent a new, exciting, and very different era for many Amiga users. Hard-core users may not like the sluggishness of the CD drive, the limited RAM, or the remote-control device. Others, though, will welcome the excellent sound and the innovative style of application. But anyone contemplating shelling out a grand for such a system should get some demos first. Since the proof will be in the applications, let them help you decide. In the meantime, check out the "Titles/Disc" sidebar that highlights some of the applications available, plus the buyer's guide for a complete list of all CDTV titles to date. ■

CES: Chicago '90

Commodore Dynamic Total Vision & More!

by Andy Patrizio

THE SUMMER CONSUMER ELEC-tronics Show (held this year on June 2-4 in Chicago) annually features products that represent at least the early fruition of stunning new breakthroughs in technology. It is an exposition dedicated to introducing these products to both industry buyers and members of the press. Commodore's presence at CES this year profoundly underscored their commitment to providing the most innovative of computer technologies to the consumer markets.

It was here, in small enclosed area within their larger display, that CBM introduced the Commodore Interactive Graphics Player, a small device already described by some as being perhaps the next great intellectual appliance.

Commodore has created a single new technology from two existing ones—laser disc technology, and the multimedia capabilities of the Amiga. This new technology—Commodore Dynamic Total Vision—is incorporated in the new Commodore Interactive Graphics Player.

One thing should be stressed about the CDTV player: it is **not** considered a computer, nor is it a compact disc player. Although it has the internals of an Amiga computer, and is capable of playing compact discs, CDTV represents not so much a step forward in technology as a sidestep onto a brand new path.

In CDTV, Commodore has created an entirely new market by joining CD technology with Amiga power in a component featuring a simplified interface. The interface is designed not to scare off the otherwise computer-phobic user. In fact, the simplified interface centers on perhaps the most familiar home electronic device in use today—the remote control!

No monitor, keyboard or mouse is needed. The CDTV player connects to a television, and with the remote control, it can operate and access a 550-megabyte CD-ROM drive. A variety of CD reference libraries are already under development, including the Bible, a cookbook, and an encyclopedia. As you might imagine, with CDTV these resources can now include sound and animation.

THE BIRTH OF CDTV

CDTV was officially unveiled at C.E.S. on June 4 by CBM Chairman Harry Copperman, along with Irving Gould, Chairman of the Board, Commodore International, and Nolan Bushnell, whose name is synonymous with computers.

Now the General Manager of Commodore's new Consumer Interactive Products division, Mr. Bushnell created the first video game ever—"Pong"—back in 1972. He went on to found the Atari Corporation and the Chuck E. Cheese "pizza theater" restaurants for children.

Declaring his high aspirations for the machine, Mr. Bushnell said "It's going to be in the home, it's going to be in the school, it's going to be in industry, it's going to be everywhere."

The technology actually makes the machine "a 21st century library," he noted. Now, a person will be able to see and hear a digitized audio/visual recording of Martin Luther King's "I Had a Dream" speech, instead of only being able to read it from a page.

CDTV will be released in September, with a selling price of \$899—rather expensive for a CD player. But as Bushnell points out, "We now have, for the first time, an Amiga platform wrapped around a compact disc."

Mr. Copperman also announced CBM's plan to put a separate sales force in place specifically geared toward schools, to quicken the move of CDTV into the educational market, as well as to take orders directly from schools in an attempt to increase Commodore's share of that vital marketplace.

Designed to look like a VCR, the CDTV player will fit right in with a stereo, receiver, amplifier and television as one component of a total entertainment system. When not functioning as an Amiga, it can play all musical compact discs, with 8X oversampling. The player operates as a computer internally, but it is used like a stereo component externally. Now, anyone has computer capabilities.

IT'S AN AMIGA, TOO

For users who do want standard computer access, add-on peripherals make this an Amiga 500 with one meg of RAM. Peripherals include a keyboard, mouse and drive and the infrared bus. A track ball is also available. Each peripheral will sell for under \$50 except the external floppy drive, which will sell for \$199.

All of the peripherals (except the drives) are wireless, and communicate via infrared signals. To permit operation of several devices on the CDTV player, the mouse, joystick and keyboard all send their signals through the "brick," since multiple infrared devices can easily have their signals crossed.

As for a monitor, the CDTV player comes with RGB output, PAL output and NTSC output; it was very inexpensive to offer all options. The player also has a few added features. One is a MIDI in/out port that can be factory installed. Another feature is a DMA slot, for hard drives or SCSI controller cards.

Some compromises have been made—as of press time, you will not be able to play your favorite Led Zeppelin CD and utilize the external floppy disk drive at the same time. And there is no 86-pin bus as on the regular A500, so

expansion is limited. But the machine does have open architecture for future expansion. Once the industry establishes a standard for full motion video, you will be able to adapt your CDTV player.

The benefits of using CD technology are obvious. Software companies no longer have to worry about their products being pirated. Users don't have to deal with VirusX or DiskDoctor to fix infections or bad sectors. Program developers get lots of extra space to design incredibly larger, more complex, more interesting and useful games and applications, with 550 meg.

While CDTV is an attempt to create or define an entirely new market, the player is still an Amiga, and Amiga users will be able to utilize the CDTV software on their present machines. Because the CDTV player has a 68000 chip and one meg RAM, it was not developed for high-level video work, although software may be developed for that purpose.

Therefore, Commodore will release a CD-ROM peripheral shortly after the CDTV player to use programs made for CDTV on any Amiga, save the A1000. The CD-ROM—along with an A2500 or A3000—probably remains a better choice for those who want CD-ROM software for high end multimedia/video use, since the player as a computer is very limited.

The CDTV player was developed to be as little like a computer as possible, both in terms of its appearance and its operation (that is why it was unveiled at C.E.S. and not Comdex). This is not for the power user or the cable television station.

NOT FOR THE COMPUTER MARKET

Because the player is not being marketed as a computer, don't look to your local dealer. The target retailers will be high-end audio/video retail dealers, department stores and selected retail chains, although just who these are has yet to be specified.

Commodore recently started the Commodore Express service for the Amiga 500, and the CDTV player will also be supported by this service. A 24-hour, toll-free "800" line is available for any problems a purchaser may encounter, and CBM has teamed with Federal Express to provide door-to-door pick-up and delivery for any repairs covered as part of the new service.

CDTV's target market is a new one specifically created with the birth of this new machine. With the interactive reference databases now under development, the Commodore Interactive Graphics Player will look and perform like something from the set of "Star Trek."

Above: Commodore Interactive Graphics Player motherboard.
Below: CDTV player with optional peripherals.

For example, one program will be based around the Silver Packette Cookbook. If you plan a meal for six guests, and nine show up, the player will recalculate the proportions needed for that number of guests. If you are out of a required seasoning, it will suggest alternates. And for European users, the machine converts U.S. measurements into Metric.

CBM's idea is to bring computer power to that portion of the consumer market that has so far shied away from computers. Considering Amiga's audio/visual strengths and the fact that operating CDTV is as easy as changing channels on a television with a remote, this idea appears to be a winner.

Having taken the look and normal operational procedures of most computers out of this machine, CBM may very well succeed in attracting buyers who normally would not touch a computer.

Commodore estimates over one hundred titles will be available by release time in September, and double that number by Christmas. The discs are expected to sell for around \$30 to \$100, depending on the program.

Commodore
Business Machines
1200 Wilson Drive
West Chester,
PA 19380
(215) 431-9100
Inquiry # 336

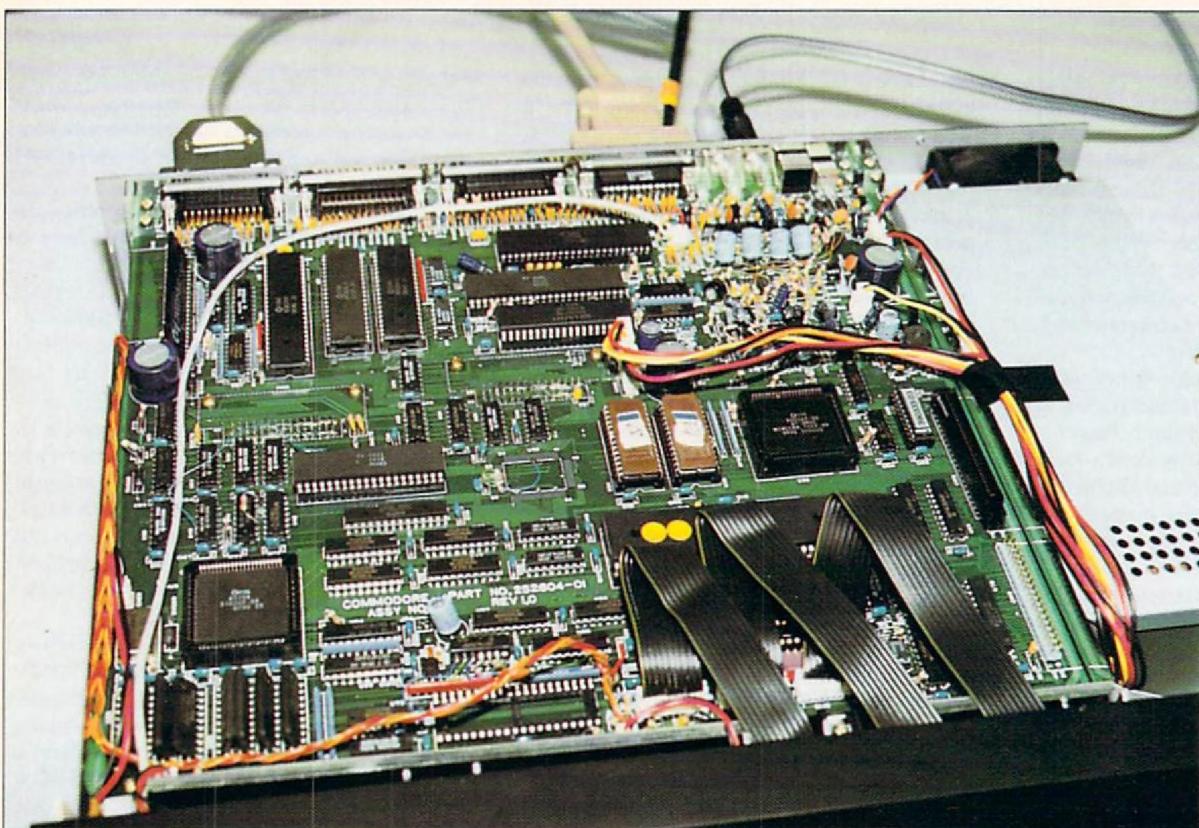
Amiga Entertainment Software at CES

Games and entertainment software appeared to be the main computer application available. Here is a few of the CES attendees and their latest entries into the Amiga market

Accolade

Jack Nicklaus' Unlimited Golf & Course Design is described as the complete golf experience, containing all the realistic elements of championship play as well as all the tools needed to design challenging and visually stunning holes and courses. Included is *The Bears Track*, an oceanfront 18-hole course designed by Jack

Above: Commodore Interactive Graphics Player motherboard.
Below: CDTV player with optional peripherals.



Nicklaus and his team exclusively for this product, and a re-creation of *Muirfield Village*, a Jack Nicklaus designed course and site of The Memorial Tournament. Due in September. \$59.95. **Inquiry # 271**

ISHIDO: The Way of Stones provides one or more strategists with the challenge of accurately placing a pouch of 72 stones on a 96 square game board. Each stone is decorated with a symbol and a color, and can only be placed next to another stone that matches either its symbol or color. As the board fills with stones, the game becomes more complex as players are faced with matching two, three, and even four sides of some stones. The most desirous move, and the most difficult, is a "four-way" where one stone is matched on all sides by four others. *Best Strategy Game of 1989*. Due in July. \$49.95 **Inquiry # 272**

Accolade

550 South Winchester Blvd.
San Jose, CA 95128
(408) 985-1700
FAX (408) 246-0885

Capstone

Tom Clancy fans will be psyched to know their favorite author has another title coming out as a computer game. *The Cardinal of the Kremlin*, due this September. You must find a missing SDI scientist and protect "The Cardinal," America's most secret spy in Russia. *Glasnost*, anyone? \$49.95. **Inquiry # 273**

Bill and Ted's Excellent Adventure will feature digitized films and sounds from the actual movie, and is scheduled to be released around the same time as the sequel this July. EXCELLENT! \$39.95 **Inquiry # 274**

Another arcade translation to computer screen is **Superman**. If it looks as good as the arcade version, this will be a great one- or two-player game. \$39.95. **Inquiry # 275**

For all you gamblers, **Trump Castle** will provide the ultimate in casino simulations. The game will feature blackjack, roulette, craps, keno, and nine different slot machines. \$39.95. **Inquiry # 276**

Capstone A division of IntraCorp, Inc.
14160 S.W. 139th Court
Miami, FL 33186
(305) 252-9040
(800) INT-RACO
FAX (305) 255-1205

Data East USA, Inc.

The Dream Team: 3 On 3 Challenge. All-pro basketball players Patrick Ewing, Dominique Wilkins, and James Worthy in a fast paced three-on-three style basketball game. Direct access to instant team and individual player stats, through a direct modem to USA TODAY'S Sports Center to keep game play as close and as exciting to the real thing as possible. To be released in late fall. **Inquiry # 277**

Bo Does Baseball provides instant access to real statistics just as the other MVP Sports simulations games. This feature offers computer games with a unique, more true-to-life sports experience. August. \$39.95. **Inquiry # 278**

ABC's Monday Night Football (Version 1.5). The complete line up of Data East MVP Sports provides an "in the game" play

COMMODORE INTERACTIVE GRAPHICS PLAYER

Technical Specifications

CPU	Motorola 68000
CPU Speed	7.15909 MHz (NTSC) 7.09379 MHz (PAL)
Memory	1 megabyte chip RAM 2K non-volatile RAM (reserved for system— clock, prefs, etc.) 512K ROM
Internal Slots	Intelligent video slot w/15 pin edge connector (for optional genlock, RF board, etc.)
Video Outputs	digital RGB, analog RGB (DB- 23 connector) composite video NTSC or PAL (RCA-type connector) component video Y-C (S connector type for S-VHS and Hi8) RF modulated (F connector) optional genlock capabilities via plug-in module; three-mode (CD, video source or mixed) under software control

CD ROM Drive Specifications

Sony/Phillips type CD-ROM standard
mode 1, mode 2

Data readout from disc

153 KBytes/sec (mode 1)
171 KBytes/sec (mode 2)
2 Megabytes/sec (burst)

Average access time 0.5 seconds

Maximum access time 0.8 seconds

Standard supported ISO-9660

Data capacity approx. 550 MB
(equivalent to about
700 Amiga floppy disks)

CD Audio Specifications

8x oversampling

Frequency response 20-20KHz

Maximum audio capacity about 14
hours—AM quality

Sample rate variable from CD audio
rate (44KHz) to 6KHz

**Dual 16-bit D/A converter plus 10-bit of
attenuation**

Rear Ports

Centronics Parallel interface
RS-232 Serial Interface
External floppy disk drive
interface (Amiga floppy
disk drive compatible)
Hardwired alternative to IR
for keyboard, mouse, joystick
2 audio output ports (RCA-type
plug); requires external audio
amplifier
MIDI In/Out

Front Port

Stereo headphone jack
Port for optional personal RAM
card (up to 64K)

Front Panel Controls

Power On/Off
Headphone volume Up/Down
Play/Pause
Stop
Forward/Reverse and Scan/Skip
CD/TV
Reset

Operating System

Amiga Kickstart 1.3 in ROM
ISO 9660 File System Handler
High-speed decompression for
graphics, audio and other
data

Infrared Remote Unit Specifications

10 function keys plus Shift key (20 total)
Up, Down, Left, Right movement buttons
Two select keys
CD Audio Play/Pause, Forward, Reverse,
Headphone Volume and Stop keys
Computer reset function

Optional Accessories

External floppy disk drive
Trackball (Infrared)
Joystick (Infrared)
MIDI In/Out, through (third
party)
Personal RAM or ROM card
Genlock
Expansion module to house
hard disk drive, modem,
floppy disk drive
Keyboard IR (infrared) interface
Keyboard
Two-player IR Interface
Modem
Printer

perspective. With improved broadcast-style statistics, players can keep track of the scoring drive, including downs, yardage stats, losses, and pass completions for more accurate game play. August. \$49.95. **Inquiry # 279**

Super Hang On is a fast-paced motorcycle racing game that takes players on a grueling motorcycle circuit that spans the globe. Game points are awarded for overall precision driving in distance, speed and course comple-

tion. Players receive bonus points for finishing a "perfect run." \$44.95. **Inquiry # 280**

North & South™ is a new strategy game with four stages of battle, players control different numbers of armies and territories, launch attacks and travel from state to state as they confront and conquer battle challenges in an effort to win the war. \$44.95. **Inquiry # 281**

(continued on page 74)

Winter '91 CES

CDTV: Developers And Consumers Say "YES" At CES!

LAS VEGAS, NEVADA was once again the scene for the Winter Consumer Electronics Show. But Commodore Business Machines, Inc. was impatient to announce CDTV (Commodore Dynamic Total Vision) to the international consumer press. CBM scheduled their big press conference for the evening before CES began. Irving Gould, Gail Wellington, Nolan Bushnell and a host of other Commodore executives rolled out their worldwide introduction of CDTV.

CDTV is Commodore's latest edition to the expanding line of hardware products based on the Amiga. (Commodore's remarkable UNIX-based machine comes in next). CDTV combines the technology of the Amiga and the storage capabilities of compact disc to create a new consumer product for learning and entertainment.

Irvin Gould, Commodore International Limited's chairman and chief executive officer, called CDTV "a revolutionary new product category that transforms consumer electronics and computer technology into a powerful new media that will enrich and enhance everyday life." Mr. Gould was standing before a packed audience of press and industry notables.

Gail Wellington, Director of Special Projects for Commodore International, Ltd., noted the large assortment of software developers for CDTV and introduced the newest, Grolier. The *Grolier Electronic Encyclopedia* contains all 21 volumes of *Grolier's Academic American Encyclopedia* on a single CD-ROM. Nolan Bushnell, general manager of the Consumer Interactive Products division of Commodore International Limited, noted in a companion press release, "The search and retrieval capabilities provide immediate access to information. Parents and children will have fun doing homework assignments or simply 'thumbing through' the information."

Some of the new features available in this latest release of CDTV include screens designed by Jim Sachs, one of the Amiga's

most famous artists. His audio screen (used whenever a standard CD is placed in the unit) displays a CD image and a section to list the tracks. As the user chooses the tracks (or the CDTV performs a shuffle), the numbers are displayed in small blocks. Once the CD is activated, a play head hovers over the appropriate disc area and a "laser" beam is seen traveling from the head to the disc and reflected back to the head. If the disc is stopped and removed from the player, both the head and the disc slide off the screen.

When playing audio CDs it might be important to check if they are CD+G. CD+G refers to hidden graphic tracks that are encoded on the compact disc. Several compact discs currently contain these hidden graphic files that play like a slow music video, but CDTV is one of the few consumer-priced units that will display these secret graphics.

CD+MIDI is another special feature of CDTV. It appears that some artists have encoded their music with MIDI information that will allow the listener to play the music through MIDI keyboards and create entirely different sounds. This feature was being constantly demonstrated by Mike Lehman, author of UltraCard and a developer for CDTV.

One of the other great features demonstrated for CDTV is its built-in capability to allow software to be written in a multitude of languages. Several developers are taking advantage of this feature at launch; however, once CDTV is available, every developer will be able to create a single piece of software that can be used on any CDTV around the world.

There was good news for Amiga 500 owners. Commodore displayed the A690 (working title) Amiga 500 peripheral that will allow Amiga 500 owners to use CDTV. Unfortunately, no firm pricing has been set for this peripheral, scheduled for a June 1991 release. Amiga 2000 and Amiga 3000 owners will need to wait longer for their

access to CDTV. Although Commodore executives say that a device is under development, no one would offer an expected delivery date.

While Commodore is unwilling to quote expected sales figures, it is interesting to note the degree of support and the talent working on CDTV products. Walt Disney Computer Software and Grolier lead a large number of developers who have adopted the CDTV format.

One of the longest-awaited products for CDTV has been Tiger Media's Airwave Adventure—The Case of the Cautious Condor. Tiger Media President Laura Buddine stated that the product was ready and waiting for the final release of CBM's CDTV. Based on a 1930's-style murder mystery with vintage comic book characters and scenes, "Condor", stated Ms. Buddine, "is the first title to be developed specifically with the interactive capabilities of optical disc platforms in mind." Tiger Media is also the producer of the CATS CD Manager which was instrumental in developing CDs using Sun Microsystems' SPARCstations.

Barney Bear Goes To School will be Free Spirit Software's first product for CDTV. Available at CDTV's release, Barney Bear Goes To School (\$34.95) is a very popular children's interactive game that teaches how to get ready for school, safety, and participation in learning activities.

Merit Software will release two products for CDTV, their Classic Board Games and All Dogs Go To Heaven Talking Crayon. Classic Board Games contains the three favorites Chess, Checkers, and Backgammon, completely redesigned for CDTV with play updates available in six different languages (French, German, Japanese, Spanish, Italian, and English).

All Dogs Go To Heaven Talking Crayon is based on the animated film by Don Bluth. Music and words from the movie are available in all 30 pictures and children

can obtain audio instructions at the touch of a button. Merit is an old hand at developing electronic crayon software; this is their sixth package.

With over 46 packages available by the release of CDTV and with hundreds now under development (Commodore has announced that there will be two hundred titles by Christmas 1991), CDTV has a vast assortment of products coming forward.

NewTek Can Be In Two Places At Once

As if it was not enough that NewTek attracted large groups of people to their booth at CES, they were doing the same in San Francisco at the January MacWorld Exposition. Offering digital effects at CES easily attracted video and consumer dealers, but NewTek's presence at MacWorld gave the Toaster/Amiga combination exposure in the Mac market as a video peripheral for the Macintosh. According to NewTek executives, the features of the Toaster/Amiga are exactly what Macintosh owners want and are far less expensive than products available for the Macintosh.

That's Entertainment!

Beyond CDTV, CES had thousands of other exhibitors, the largest assortment of which were game manufacturers. With Nintendo occupying an entire pavilion, and other hardware producers maintaining extremely large booth areas, the event was like a magnet for anyone producing entertainment software. Most developers provide products for more than one platform, yet in the past it was very difficult to find Amiga software at CES. Today, however, there are a growing number of developers who do not want to miss the opportunities of developing entertainment software for the Amiga. Here are just a few of the many we uncovered.

Accolade announced a new distribution agreement with U.S. Gold, a leading entertainment software developer in Europe. U.S. Gold will be supplying Accolade with four new titles scheduled to be available by April 15, 1991—Gold of the Aztecs, International Soccer, Vaxine, and Rotox.

Accolade also announced the release of several new Amiga games of its own. Jack Nicklaus Presents The Great Courses of the U.S. Open is the latest add-on disk for Jack Nicklaus' Unlimited Golf & Course Design and Jack Nicklaus' Greatest 18 Holes of Major Championship Golf. In addition, Accolade has promised HoverForce, Jack Nicklaus Presents the Major Champion-

Clockwise from upper left:
Compact audio discs with CD+G;
CDTV titles ready for launch;
The A690 CDTV peripheral for the Amiga 500.



ship Courses of 1991, Les Manley In: Search for The King, Altered Destiny, and Gunboat: River Combat Simulation. They should all be available this month.

Access Software Inc. announced the release of several new games. Mean Streets is an "Interactive Detective Movie" set in San Francisco in the year 2033. The interesting thing about this new game is that it was developed using full size sets, more than 30 actors, models, and extras, new techniques to digitize both sound and motion, and custom designed scale models. With the use of innovative video technology, Access has proven that today's game programmer is getting closer than ever to cinema directing.

California Dreams' Amiga games included Blockout, the 3-D strategy and reaction game, and, appropriately enough, Vegas Gambler. Vegas Gambler offers four of the most popular casino games in astound-

ing detail. Test your luck in Vegas without losing a dime.

But you could lose your heart over California Dreams' next release, Street Rod II. Remember your first car and how you fixed her up to run with the best? If you do, or if you never had the experience and want to live it now, Street Rod II (\$39.95) is a racing construction set and simulator in which you buy any one of 25 authentic cars and then customize it for road racing.

Solidarity (\$49.95) is more than a phrase at California Dreams. With this new graphic political simulator you form a Polish trade union during the dangerous days prior to the formation of the Solidarity trade union. As former members of Solidarity, game designers at the PZK development group in Warsaw, Poland used their personal experiences and memories to bring authenticity to this interesting creation.



Top to bottom:
The audio screen for
compact audio
discs;
Optional CDTV track
ball and wired
control;
CDTV's multilingual
selection screen.

Cinemaware's TV Sports: Baseball will be ready in time for spring training. With practice modes for batting, pitching, and fielding, as well as the ability to trade players, *TV Sports: Baseball* (\$59.95) will bring network action play to the Amiga next month. In May, Cinemaware will follow with their release of *Enemy Within* (\$49.95). *Enemy Within* keeps players in touch with—but not always in control of—the action. In this offbeat spy thriller you deal with subplots as active as the main theme, and each person's personal agenda can have a devastating effect on your own. *Rollerbabes*, a high-spirited romp of roller derby and so much more was also announced for the Amiga, but a specific release date was not given.

Interplay's Castles (\$59.95) will let you explore the world of thirteenth-century castle building, but it will not be available for the Amiga until August 1991. Available sooner (April 1991) and a bit more modern is *Cruise For A Corpse* (\$59.95), in which a cold-blooded murderer aboard the yacht of a wealthy Greek shipowner stalks and kills the magnate's guests. In the future, everyone will play the TV game show *Lexi-Cross*, a game with a lovely robot and letter tiles, but Amiga owners will be able to buy it in May. *Dvorak on Typing* (yes, that is *the* Dvorak) teaches touch typing through step-by-step lessons with graphics and audio feedback. While *Dvorak on Typing* (\$49.95, Amiga version in June 1991) does not promise to make you a nationally recognized computer columnist, it does promise

to make you a more confident touch typist.

Back To The Future II (\$39.95) leads an army of new Amiga releases planned for this year by Konami. *Back To The Future II* follows the adventures of Marty McFly and Doc straight from the feature film. *Theme Park Mystery* (\$49.95) is your dream come true, if your dream is to inherit a deserted theme park from your mad uncle. *Super C* (\$19.95) continues your arcade activities against alien foes like the Jagger Froid and Red Falcon's brain.

New World Computing, Inc., the creators of *Nuclear War*, is about to bring its highly popular *King's Bounty* to the Amiga. *King's Bounty* is a role-playing/strategy game where triumph comes with conquest and conquest comes by besting villains on four continents.

Ocean is offering an entire universe of new games, including *F29 Retaliator* (\$49.95), *Nightbreed* (\$39.95), *Billy The Kid* (\$39.95), *Battle Command* (\$39.95), *The Untouchables* (\$39.95), and *Lost Patrol* (\$39.95).

Spectrum Holobyte's Flight of The Intruder (\$59.95) is also now scheduled for the Amiga; it brings Steven Coonts' tale of Vietnam fighting through 36 missions. There was also a hint that *Red Phoenix* would be developed first for the IBM and then for the Amiga, although the new *Falcon 3.0* is scheduled only for the IBM.

UBI Soft announced a game of stacking balls and advancing levels, *Pick'n Pile* (\$39.95). Balls fall from the sky and must be stacked in columns of the same color. Get them stacked, they disappear, and you move to the next level. *Pro Tennis Tour 2* (\$49.95) is your entry into the advanced world of professional tennis.

Virgin Mastertronic has taken the bizarre world of Lewis Carroll to new levels. Travel the world of *Wonderland* (\$59.95) as Carroll's most famous character, Alice. Also soon to be released are *Guild of Thieves* and *Corruption*, and *Fish!* All three Virgin releases are the products of Magnetic Scrolls. Virgin also promised *Overlord* (\$49.95), the simulation game that allows you to settle and develop an entire universe.

Soon-to-be-released entertainments include: *Mindcraft's The Magic Candle Vol. 2: The Four and Forty* (\$59.95); *The Secret Of Monkey Island* and *Secret Weapons Of The Luftwaffe* from Lucasfilm Games; and *Armada 2525*, *D.R.A.G.O.N. Force*, and *Star Fleet II* from Interstel Corporation.

•AC•

CDTV



The CDTV Welcome disc.

IT HAS BEEN ALMOST A YEAR since Commodore first announced Commodore Dynamic Total Vision or CDTV to the press and to invited guests at last summer's Consumer Electronic Show (AC July 1991). Since then, *Amazing Computing* has been covering Commodore's different announcements and subsequent launches of CDTV in Canada (January 1991) and Las Vegas (March 1991) as well as their first sales of this newest marvel at New York's World Of Amiga (May 1991).

We have taken a portion of AC's *GUIDE* and abridged it here to demonstrate some of the products currently available or proposed for CDTV. We hope that in doing so we not only provide our readers with a window into a new manner of Amiga computing, but also entice developers into providing even more CDTV possibilities.

Our interest in CDTV is based on the raw excitement that CDTV creates with its ability to manipulate large amounts of graphics, sound, information, and animation in a form that even the non-computer person can enjoy. In short, CDTV gives the best of the Amiga and multimedia in disguise. CDTV users rarely know that they are working with a computer.

But has this left out the Amiga user who has not purchased a CDTV player? No, CDTV will be available as a peripheral to Amiga 500 users through Commodore's A690. The A690 connects directly to the A500 expansion connector and provides all of the features found in the commercial CDTV "audio component" design, with the exception of the clock on the front panel. Amiga

2000 and 3000 owners will need to wait a little longer if they want the complete package from Commodore. CBM has not yet announced a CDTV peripheral for the professional platforms of the Amiga. However, CBM corporate executives are emphatic that a CDTV peripheral will be available.

ENTER XETEC

Xetec has announced that their CD-ROM players, CDx-650E and CDx-650L, will play CDTV titles. Currently, Xetec

NO-FUSS AMIGA

Currently, CDTV consists of a CD ROM player and an Amiga 500 with a megabyte of RAM. This allows producers to develop CDTV packages with Amigas. Fortunately, there is a large number of developers who already understand the basic operating system of the Amiga. There is also a large number of tools currently available for developing on the Amiga, and every one of these tools is useful in programming for CDTV. The added bonus of 540

CDTV is only for those who want to learn, want to teach their children, wish to be entertained, love music, are curious, enjoy a challenge...

is demonstrating a 91% success rate in running direct CDTV titles on their equipment. Although these drives support conventional audio CDs, they will not be able to support the CD+G or the CD+MIDI audio discs.

In addition to the CDTV titles that will play on the system, Xetec's drives will also tap into the ever-growing library of CD information titles in development. With 540 megabytes of information available, these drives will go a long way towards increasing your Amiga's capabilities.

megabytes of accessible storage space on a CDTV CD-ROM grants developers a latitude of freedom never before available on the Amiga.

Commodore has remained adamant in their desire to make CDTV as "uncomputer-like" as possible. Basic input devices have been designed around infrared technology to eliminate wires. For more critical devices such as a mouse or keyboard, you can use an optional *Brick*. The keyboard, mouse, or joystick can be plugged into a black box called a "brick" which is pointed toward the CDTV player. This



Above: A scene from Xiphias's Time Table of History: Business, Politics, & Media

Below: The Challenger disaster is replayed in Xiphias's Time Table of History: Science And Innovation

CDTV has the ability to take you from President John F. Kennedy's commitment to Space to the tragedy of the Challenger shuttle disaster.



way, no matter how you orient the input device, the signals will travel correctly to the receiver. It also appears that these devices can be plugged directly into the back of the CDTV unit in the two input ports provided.

CDTV's simple infrared remote control device allows the user to access CDTV from anywhere in the room. While the buttons and arrow keys may take a moment to get used to, the device is designed to be easy to learn and to work in exactly the same way with each piece of software. Commodore has eased the learning process by providing documentation on disc.

The Welcome disc that comes with each CDTV is a highly interactive instructional aid on how to set up your CDTV. It highlights some of the features of CDTV and gives a list of current or future products. With the instructions for attaching your CDTV to a television contained only on the Welcome disc, it's fortunate that CDTV is easier to install than a video game or a VCR. Nevertheless, the disc is extremely valuable in configuring your system in different ways.

With the Welcome disc, you quickly become familiar with the way CDTV works. Since the disc is designed to function like any other piece of CDTV software, you are not only shown the

variety and options of CDTV but you also learn to operate it. By the time you have completed the disk, you have learned to press the keys only in the correct sequence, and you know that the disc access light on the front panel of the CDTV player will tell you that you have accessed the next portion of a program.

The main thing to remember is that CDTV is designed not only for the average Amiga user but also for someone who is less than comfortable with a traditional computer. CDTV is designed to be easily accessible and very powerful without letting the user become bogged down in the technology.

NEW PRODUCTS: NEW OPPORTUNITIES

Commodore Dynamic Total Vision is not for everyone. CDTV is only for those who want to learn, want to teach their children, wish to be entertained, love music, are curious, enjoy a challenge, appreciate a rest, and feel that their televisions should be more than passive instruments. With CDTV, the family television can become a center for learning and discussion. CDTV offers the best of a computer, a game machine, and a good stereo component. With CDTV, all of us have more access to information presented in a

multimedia format conducive to learning.

CDTV products, such as Xiphias's Time Table of History, allow users to experiment and learn at their own rate and in their own direction. With Time Table of History you can listen to President John Kennedy announce the United States mission in space, or view the tragedy of the Challenger disaster. One noted inaccuracy: on this same set of remarkable discs, the Amiga is listed as having been introduced in 1987 instead of 1985.

While some companies are providing existing games in expanded format on CDTV, other companies are creating new products expressly for CDTV. CDTV as a platform is a great new environment for developers. Not only do they have all the tools and features of the Amiga platform, but they have the added space and reliability of CD-ROM.

The future of CDTV is enormous. The list provided here is only a hint of what this new tool can achieve. Through the efforts of third-party developers, we will see not only the expansion of CDTV possibilities, but, with the help of new peripherals from CBM, also the growth of the Amiga.

CDTV: THE FIRST TITLES

◆ A Bun For Barney

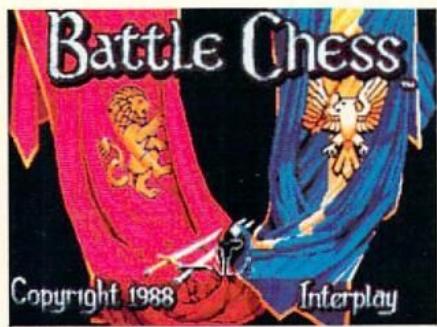
A Bun For Barney is a delightful animated story for children aged 3 to 6 about a bear who learns to say 'no.' Animated by Melendez Films, producers of the well-loved PEANUTS specials on CBS Television, and narrated by Tom Baker. \$49.95 *Multimedia Corporation*

◆ A Long Hard Day on the Ranch

Desperate bandits, runaway cattle, wild stallions, hungry ranch hands, mountain lions, and broken toes hold no terrors for our imaginative hero—a young boy spending the summer on his aunt and uncle's ranch. \$44.95 *Discis Knowledge Research*

◆ Advanced Military Systems

Advanced Military Systems provides information on the world's finest military technology. The newest and most advanced military hardware is featured in over 1500 action photographs accompanied by music and narration. \$39.95 *Dominion Software & Design, Inc.*



◆ Airwave Adventure: The Case of the Cautious Condor

Explore hundreds of images, hours of audio, and thousands of possibilities. Join Ned Peters, detective, and a colorful cast of suspects on board the 1937 maiden voyage of the Condor. You have thirty minutes to solve the crime on this thrilling flight into history and murder. \$49.95 *Tiger Media*

◆ Animated Coloring Book

For kids, and the child in all of us, the Animated Coloring Book makes it simple to create beautiful pictures and then bring them to life. Using up to 61 crayons (colors), you pick up the one you want and click to fill in the outlines. Then with a click you can bring your colored picture to life through animation. \$39.95 *Gold Disk, Inc.*

◆ Barney Bear Goes to School

Barney Bear Goes to School is a learning game for pre-school children that combines colorful, animated graphics and rich, 'multi-track' audio. The game asks children to identify objects on the screen and then rewards them for correct choices with audio response. Once Barney is in his schoolroom, children may choose from activities such as spelling games, counting games, shapes, and a coloring book. \$39.95 *Free Spirit Software, Inc.*

◆ Basketball

Basketball brings all the on-court excitement and backroom strategy of real-life basketball into your own home. The 'SBA League' allows you and a friend to own, manage, and coach your own basketball teams. One or two players can challenge each other, or watch the computer play itself. \$49.95 *Context Systems, Inc.*

◆ Battle Chess

An entire medieval world at war is reflected on the checkered field. Colorful and dramatic 3-D animation. Play against a friend, against the computer, or let the computer play itself. \$59.95 *Interplay Productions*

◆ Bureau of Astral Troubleshooters

B.A.T. is an adventure game that lets you become the one agent of the Bureau of Astral Troubleshooters who can save Terrapolis. Vrango, a top scientist, and Merigo, a small-time crook, have announced their intention to set off nuturobiogenic bombs in Terrapolis, the largest city of Selenia. After time runs out, Selenia will be blown out of the galaxy. The countdown has begun, and it's up to you to foil Vrango's evil plans. \$49.95 *UBI Soft*, distributed by *Electronic Arts*

◆ CD-REMIX

CD-REMIX lets you take your favorite music CD and resequence pieces of it to make your own extended dance tracks or personal remixes. The easy-to-use icon driven language allows you to build your own storyboard of commands. \$49.95 *microdeal*

◆ Cinderella—The Original Fairy Tale

Most children will be familiar with the story of Cinderella—although not necessarily this version. Cinderella, 'both good and beautiful,' still marries her prince, but she also finds rooms in the palace for her two stepsisters—and even arranges aristocratic matches for them! For children 6 years and older. \$54.95 *Discis Knowledge Research*

◆ Classic Board Games

Classic Board Games enables you to play Chess, Checkers, and Backgammon on your television. Audio directions and updates are provided in six languages: English, German, Japanese, French, Spanish, and Italian. \$49.95 *Merit Software, Inc.*

◆ Complete Works of Shakespeare

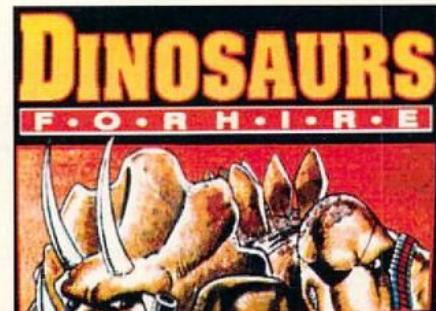
The complete works of the world's greatest playwright is now available on a single compact disc. All major scenes are illustrated with reproductions of original woodcuts. \$49.95 *Animated Pixels*

◆ Composer Quest

Composer Quest offers a revolutionary, interactive, and fun way to learn Music History through the work of the great composers, from 1600 to the present. *Dr. T's Music Software, Inc.*

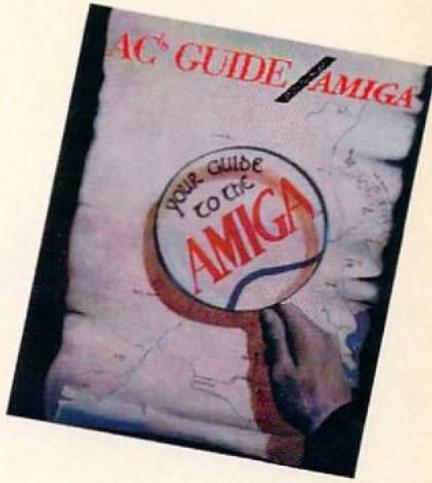
◆ Dinosaurs for Hire

What happens when three out-of-time gun-toting dinosaurs hit the streets? Bullets fly, evil-doers tremble, and insurance rates go through the roof. Dinosaurs for Hire is another in a series of comic books on disc. Hundreds of pages, thousands of screens, and more fun than you can shake a Tyrannosaurus at. *Wright Enterprises*



◆ Dominion

Dominion is a traditional strategy game brought to television. Each player buys and sells national resources and maneuvers his or her armies, fleets, and air forces to protect and expand territory. The action is enhanced with music, sound effects, high-quality action images, and animation. \$49.95 *Dominion Software & Design, Inc.*

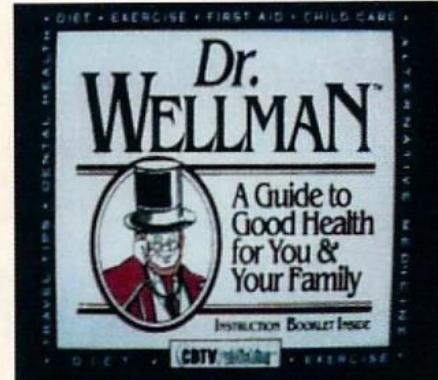


◆ Dr. Wellman

Dr. Wellman is a comprehensive home health system covering all the areas of health care relevant to an average family. A unique keyword system provides a dictionary of over 600 explanations for names, terms, symptoms, and conditions. Contains password-protected sections dealing with adult health. \$79.95 *CDTV Publishing*

◆ Electric Crayon Deluxe: All Dogs Go To Heaven

All Dogs Go To Heaven Talking Electric Crayon is an exciting title that transforms your television into an electric coloring book. Based on the animated film by Don Bluth, this disc is a must for all children and the young at heart. \$49.95 *Merit Software, Inc.*



◆ Falcon

Get set for the 'flight of your life!' The powerful Falcon F-16 takes you streaking across the skies at Mach 2. The accurate weapons systems, heads-up display, cockpit controls, and overall flight characteristics make this the ultimate in simulations. \$69.95 *Spectrum HoloByte*

◆ Future Wars

Travel back and forth through time to save the earth from future destruction by alien invaders. Over three years in development, the animated cinema-style graphics, user-friendly interface and digitized sound track combine to form a complete gaming experience. \$59.95 *Interplay Productions*

◆ Gardenfax: Fruit, Vegetables & Herbs

Fruits, Vegetables & Herbs is a quick and accurate way to answer your questions about choosing and cultivating many edible plants. \$49.95 *CDTV Publishing*

(continued on page 64)

CDTV: THE FIRST TITLES

(continued from page 49)

◆ Gardenfax: Garden Plants

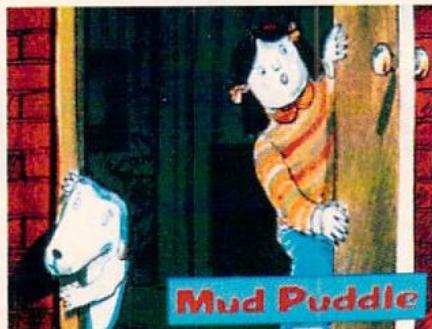
Garden Plants is an easy, fun, and informative way to select and care for beautiful plants in your garden. \$49.95 CDTV Publishing

◆ Gardenfax: Indoor Plants

Indoor Plants takes the guesswork out of choosing and caring for houseplants. \$49.95 CDTV Publishing

◆ Gardenfax: Trees, Shrubs, Roses & Conifers

Trees, Shrubs, Roses & Conifers is an interactive information program designed to answer the questions of all gardeners about their horticultural plants. \$49.95 CDTV Publishing



◆ Heather Hits Her First Home Run

The bases are loaded, her friend Jeffrey is on third, and everyone is calling for a home run as she steps up to bat. Heather Hits Her First Home Run is a story of how children feel in life's crucial moments. This book shows children the value of perseverance and team spirit. \$44.95 Discis Knowledge Research

◆ Horse Racing

Horse Racing brings all the on-track excitement and strategy of real-life racing into your own home. Bet on the favorites to Win, Place, or Show. Up to four players may compete. Detailed past performances of the last 10 race results for every horse at the track. \$49.95 Context Systems, Inc.

◆ Indoor Sports

Four high-quality, challenging games will keep you entertained long after other games have been retired from competition. Get the ball rolling with Bowling. Darts won't leave you bored. Get a rush from Air Hockey. Finish off with a generous serving of Ping Pong. \$49.95 Context Systems, Inc.

◆ LTV English

LTV English helps people learn English as a second language. It allows the user to familiarize himself with the English and American accents, and to rapidly improve his mastery of the language. \$49.95 Jeriko

◆ Lemmings

Lemmings establishes a brand new category of game for the Amiga. Hordes of tiny characters that you have to guide through many levels of obstacles and adventures building bridges, digging tunnels, climbing mountains, parachuting to safety. Each level requires you to construct increasingly complex routes to save as many Lemmings as you can. *Psynopsis Limited*

◆ Many Roads To Murder

Many Roads To Murder can be a disappearance or robbery. Which one depends upon your first choice of plot lines. Your second choice determines the next plot twist. As the title suggests, there are many roads to choose from. Each one challenges

you to solve an excitingly different mystery adventure. \$39.95 CDTV Publishing

◆ Mickey's 123's

Mickey Mouse introduces preschool children to numbers and counting. Children learn at their own pace by exploration. Four separate locations to visit with Mickey—post office, grocery store, toy factory, and birthday party. *Walt Disney Computer Software, Inc.*

◆ Mind Run

Mind Run consists of a set of exercises to test your intellectual aptitudes and to use for evaluation and personal development. You can control the level of difficulty for each type of test. This graphical challenge will engage and entertain you for many hours. \$44.95 CDTV Publishing

◆ Moving Gives Me A Stomach Ache

Moving is not easy for anyone, but for a little boy it is especially hard. This warm, sensitive story explores children's feelings about moving and shows them that it is not so bad after all. This story is a must for any child facing a move, whether it is across the country or around the block. \$44.95 Discis Knowledge Research

◆ Mud Puddle

Keeping clean and tidy is a difficult job for any young child—especially when a mud puddle is out to get you. Jule Ann tries to escape from the mud puddle that is chasing her, but she just can't get away. She has to find a way to outsmart the puddle. \$49.95 Discis Knowledge Research

◆ Murder Anyone?

Murder, Anyone? challenges you to discover who killed Derrick Reardon. Each of the 16 stories has a unique, puzzling solution that will test your sleuthing skills. Clues are presented as a series of full color images with a dramatic audio track. \$39.95 CDTV Publishing



◆ The Paper Bag Princess

◆ Music Maker

Anybody will be able to play music in minutes using the unique features of Music Maker. Choose one of the 17 song tracks, select from over 40 instruments and play along. The CD quality audio tracks are accompanied by changing graphics. \$49.95 CDTV Publishing

◆ My Paint

My Paint is an easy-to-use, educator-approved and classroom-tested paint program designed especially for children. Features include colorful, animated symbols for all tools, a complete 'coloring book' of over 100 pictures, sounds which accompany each picture, multiple brush sizes, special 'surprise' pictures, special effects, color cycling, and more. \$39.95 Saddleback Graphics, Distributed by Centaur Software



◆ Ninja High School

Ninja High School is a tongue-in-cheek comic book on a CD disc. Hundreds of pages, hours of fun, and much better looking than those silly turtles. *Wright Enterprises*

◆ North Polar Expedition

North Polar Expedition is an exciting multi-role-playing adventure disc for groups of five to ten. In a race against time before the ice-pack breaks up, the group members take on the roles of leader, navigator, pilot, and so on, and must make the right decision to succeed in their quest. \$49.95 *Virgin Mastertronic International*

◆ Our House

Our House offers youngsters a fascinating window into a typical American home—their own—by allowing them to explore how everyday objects in each room are actually used, and to discover what real life was like in generations gone by. Our House offers discriminating parents a captivating and educational alternative to 'Nintendo style' entertainment for children. \$49.95 *Context Systems, Inc.*

◆ Pro Tennis Tour II by UBI Soft

Pro Tennis Tour II offers more options than the average player encounters in the real world. This simulation game includes training programs where you can choose from a variety of opponents—male and female—various court surfaces, personal skill levels including strengths and weaknesses, and singles and doubles, or even 'dirty mode' triples. The on-screen scoring display, realistic sound effects, and two-player option give Pro Tennis Tour II the look and feel of an actual tennis game. \$49.95 *Electronic Arts*

◆ Psycho Killer

Psycho Killer is an interactive TV experience. High quality audio and digitized images create total reality. The plot and game are interwoven. Confront Psycho Killer, survive, rescue his potential victim, and escape. The story varies based on how you play. \$49.95 *On-Line*

◆ Scary Poems for Rotten Kids

Whether you are frightened by goblins or Gerbelgeks, fog phantoms, or even the dreaded pocket monster, you'll find lots of chuckles and chills in Scary Poems for Rotten Kids. Explanations of every word and picture in the text are available in English and in Spanish. \$59.95 *Discis Knowledge Research*

◆ Shadow of the Beast I

An adventure game that takes the player through 13 levels and 350 screens of multi-dimensional, parallax scrolling and other graphics and audio special effects implemented for the first time on the Amiga. If you do manage to survive, don't worry, *Shadow of the Beast II*, the sequel, is waiting to challenge you even more. \$39.95 *Psynopsis Limited*

CDTV: THE FIRST TITLES

◆ Shadow of the Beast II

Shadow of the Beast II features a new cast of sinister, intelligent opponents, arcade quality animated sprites, diabolically clever hidden traps and puzzles to solve, multiple inventory control, real time interaction with intelligent creatures, rich new sound effects and speech. *Psygnosis Limited*

◆ Sherlock Holmes Consulting Detective

Capture the mystery and excitement of Holmes' London in this challenging and informative game. You, the player, will match your deductive abilities against the master sleuth himself, Sherlock Holmes. You are presented with a mystery to solve, and it is then up to you to trace the threads of evidence through the byways and mansions of 19th century London. \$69.95 *Icom Simulations*

◆ SimCity

SimCity puts you in charge as both the mayor and the city planner of a dynamic real-time urban development simulation. Build houses, stores, factories, roads, football stadiums, airports, and parks. With three different time periods, your city will evolve through time from the Wild West to Future U.S.A. \$49.95 *Maxis*

◆ Snoopy: The Case of the Missing Blanket

Snoopy: The Case of the Missing Blanket is a colorful, fully interactive cartoon which is a challenge and delight for all Snoopy fans. Snoopy plays detective in this animated cartoon adventure, facing the task of finding where Linus lost his blanket. Snoopy must find the missing blanket and then return it to Linus who is most upset at misplacing it. \$49.95 *The Edge Interactive Media*

◆ Spirit of Excalibur

Spirit of Excalibur is an epic quest to restore the grandeur and glory of Arthur's Roundtable. You explore over 100 beautifully-illustrated unique locations and listen to the conversations of the colorful cast of characters in this rich adventure game. \$59.95 *Virgin Mastertronic International*

◆ The American Heritage Illustrated Encyclopedia Dictionary

Houghton-Mifflin's highly regarded dictionary with 180,000 entries is enhanced in this CDTV version with 3,000 color illustrations and an automated word pronouncer and speller. As with Xiphias' Time Table series, every word on the TV screen is 'hot' so all the material links easily to all other references to that word, turning the material into an exploratorium of the English language. \$69.95 *Xiphias*

◆ The Cardinal of the Kremlin

Anti-missile defenses and satellite technologies provide the central action in Tom Clancy's novel, *The Cardinal of the Kremlin*. Players are challenged to develop these strategic defenses for America—manipulate a myriad of international forces, deal with espionage, terrorism and global politics—to win the technological race against the Soviets. *Capstone*

◆ The Hound of the Baskervilles

The Hound of the Baskervilles CDTV disc recreates Sherlock Holmes' greatest case from contemporary evidence, using original papers found in Dr. Watson's tin dispatch box. With a plot from the genius of Sir Arthur Conan Doyle and a game design by the renowned Simon Goodenough, the atmosphere is heavily laden with suspense and drama. \$49.95 *On-Line*

◆ The Illustrated Holy Bible

The Illustrated Holy Bible contains the complete text of the Old and New Testaments together with full color illustrations. Using the CDTV remote controller, the user can select any book or chapter

of the Bible within seconds using a novel graphical display. \$49.95 *Animated Pixels*

◆ The New Basics Electronic Cookbook

The Silver Palate library of recipes—1800 strong—drawn from a set of three books have sold in aggregate over 4.5 million copies. The recipes and the informed asides of the two well-known authors, Shirlee Rosso and Sheila Lukens, are accessible through a simple screen presentation. Richly enhanced with full-color photos of over 450 recipes and their ingredients with voice-overs by the authors. \$59.95 *Xiphias*

◆ The New Grolier Electronic Encyclopedia

Take the definitive encyclopedia text—Grolier's Academic American Encyclopedia. Add the multimedia elements of historical pictures, detailed maps, colorful illustrations, life-like sound all stored on a single CD. \$395.00 *CDTV Publishing*

◆ The Paper Bag Princess

Once upon a time a beautiful princess and a handsome prince lived in a castle. Suddenly the castle is destroyed by a fierce dragon, the prince is carried away, and the princess is left with only a paper bag to wear. Contemporary values such as equality between men and women are reflected in this tale. For children aged 6 and up. \$49.95 *Discis Knowledge Research*

◆ The Tale of Benjamin Bunny

Benjamin Bunny and his cousin Peter Rabbit visit Mr. McGregor's garden to retrieve Peter's clothes—left there on a previous visit. Only the appearance of Benjamin's father saves the two young rabbits from another encounter with the dreaded Mr. McGregor. \$54.95 *Discis Knowledge Research*

◆ The Tale of Peter Rabbit

This is the classic tale of naughty Peter Rabbit, which has sold over 15 million copies since it was first published in 1902. Follow Peter as mean Mr. McGregor chases him around the garden, into a



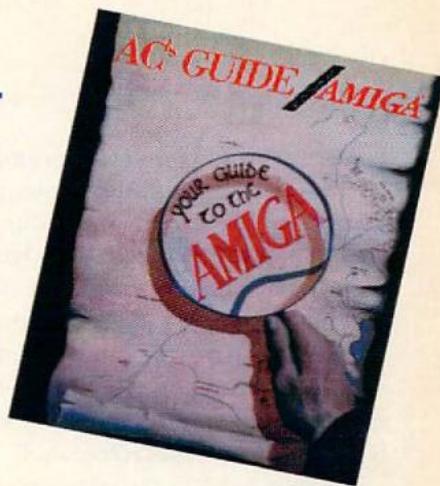
gooseberry net, and even through a window. Find out how he loses his clothes and is helped by friendly sparrows. \$59.95 *Discis Knowledge Research*

◆ Thomas' Snowsuit

Getting Thomas to put on his snowsuit was an impossible task for his mother, his teacher, and his principal. But Thomas quickly jumped into his snowsuit as soon as a friend invited him out to play. For children aged 5 and over. \$49.95 *Discis Knowledge Research*

◆ Time Table of Business Politics and Media

Timetable of Business Politics and Media is an exploration title devoted to the energies invested in the acquisition of wealth, power, and knowledge over man's history. Material on the crisis in the Persian Gulf makes this an especially valuable disc to add to your collection. \$59.95 *Xiphias*



◆ Time Table of Science and Innovation

An exploration of the history of science and technology, boasting 6,250 stories, thousands of graphics, and a rich environment of multimedia effects. All entries are cross-referenced by topic. You can follow your own paths of interest through this immense 'body of knowledge', using the timeline and 'hotword' interaction. \$59.95 *Xiphias*

◆ Unreal

Unreal is a magical, fantasy-arcade game. Your objective is to destroy the Master of Darkness, Polymorphe, and take control of the four elements which he has used to create chaos on the planet of *Unreal*. *Unreal* is a beautiful fantasy world with stunning graphics and incredible natural sound effects. \$49.95 *UBI Soft*

◆ Women In Motion

On-Line is proud to present *Women In Motion*, an encyclopedia of movement. This product gives a unique insight into the moving form. You can examine each frame of animation, print it out, or load it into an art package and work with it. Contains nudity—parental guidance suggested. \$49.95 *On-Line*

◆ World Vista Atlas

World Vista is the first multimedia world atlas incorporating full color, fully featured maps, photographic images, high quality audio, and text. *World Vista* includes high definition maps from Rand McNally, over 1,000 professionally photographed images, music from the Smithsonian Institution, and examples of over 60 foreign languages with on-screen translation. \$79.95 *Applied Optical Media Corp.*

◆ Wrath of the Demon

Legends tell of a time when fear ruled the land—a time when no man, woman, or child was safe from the spread of evil; a time when a fierce Demon sent his evil minions to roam through the land and make the Kingdom his own. You have been summoned by the King to defend the realm, rescue the Princess, and rid the Kingdom of the evil Demon before all is lost. \$49.95 *ReadySoft, Inc.*

◆ Xenon 2: Megablast

No one comes more universally despised than the Xenites. For a thousand years they have been plotting revenge for their humiliating defeat in the last Galactic Conflict. The Bitmap Brothers swing back into action with their award-winning hit arcade-style game. \$49.95 *MirrorSoft*

Turn to page 95 for a list of
CDTV developers and
upcoming CDTV products.

CDTV Developers

Accolade
550 S. Winchester Blvd. Ste. 200
San Jose, CA 95128
(408) 985-1700

Animated Pixels
Albemarle House
Osborne Rd.
Southsea, Hants
PO5 3LB United Kingdom

Applied Optical Media
18 Great Valley Pkwy.
Malvern, PA 19355
(215) 889-9564

Capstone
14202 SW 136th St.
Miami, FL 33186
(800) 468-7226

CDTV Publishing
1200 Wilson Dr.
West Chester, PA 19380
(215) 431-9100

Commodore Business Machines
1200 Wilson Dr.
West Chester, PA 19380
(215) 431-9100

Context Systems
The Technology Center
333 Byberry Road
Hathboro, PA 19040
(215) 675-5000

Digraphic
1 The Terrace
High Street
Lutterworth, Leicestershire,
England LE17 6BA

Discis Knowledge Research
45 Sheppard Ave. East, Ste. 410
Toronto, Ontario,
Canada M2N 5W9
(416) 250-6537

Domark
Ferry House
51-57 Lacy Rd., Putney
London SW15PR, UK

Dominion Software & Design
3328 Oakshade Court
Fairfax, VA 22033
(703) 318-8270

Dr. T's Music Software
100 Crescent Rd.
Needham, MA 02194
(617) 455-1454

Edge Interactive Media
225 South Lake Ave., Ste. M157
Pasadena, CA 91101
(818) 577-9375

Europress Software
Europa House
Adlington Park
Macclesfield, Cheshire
England SK10 4NP

Free Spirit Software
P.O. Box 128, 58 Noble St.
Kutztown, PA 19530
(215) 683-5609

FTL Games
6160 Lusk Blvd., C-206
San Diego, CA 92121
(619) 453-5711

Gold Disk
5155 SpectrumWay, Unit 5
Mississauga, Ontario,
Canada L4W 5A1
(800) 465-3375

Icom Simulations
648 S. Wheeling Rd.
Wheeling, IL 60090
(800) 877-ICOM

Infogrames
84 Rue de la Mars
69628 Villeurbanne cedex
France

Interplay Productions
3710 S. Susan, Ste. 100
Santa Ana, CA 92704
(714) 549-9001

Jeriko
5 Bld. Poissoniere
75002 Paris,
France

Lawrence Productions
1800 South 35th Street
Galesburg, MI 49053
(800) 421-4157

Logic Plus
18 Whitesands Grove
MGR Park
Stoke-on-Trent, Staffs, UK

Maxis
Two Theatre Square
Orinda, CA 94563
(415) 254-9700

Merit Software
13635 Gamma Rd.
Dallas, TX 75244
(214) 385-2353

microdeal
P.O. Box 68, St. Austell
Cornwall PL25 4YB, England
(011) 447-266-9692

MirrorSoft
Irwin House
118 Southwark St.
London, England SE1 0SW

Multimedia Corporation
109X Regent's Park Road
London, England, NW1 8UR

On-Line
14 Falcon Way
Clippers Quay
London, E149UP, UK

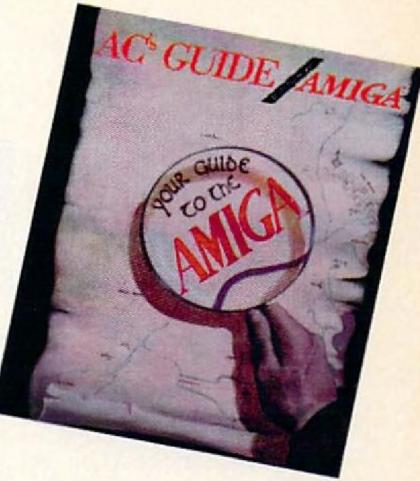
Psygnosis Limited
29 St. Mary's Court
Brookline, MA 02146
(617) 731-3553

ReadySoft
30 Wertheim Court, Unit 2
Richmond Hill, Ontario,
Canada L4B 1B9
(416) 731-4175

Saddleback Graphics
12812 Garden Grove Blvd.
Unit P
Garden Grove, CA 92643
(714) 741-7093

Sassenrath Research
P.O. Box 1510
Ukiah, CA 95482
(707) 462-4878

Spectrum Holobyte
2061 Challenger Drive
Alameda, CA 94501
(415) 522-3584



Tiger Media
5801 E. Slauson Ave., Ste. 200
Los Angeles, CA 90040
(213) 721-8282

Titus Software
20432 Corisco St.
Chatsworth, CA 91311
(818) 709-3693

UBI Soft
distributed by Electronic Arts
8/10 Rue de Valmy
93100 Montreuil Sous Bois,
France

Virgin Mastertronic International
18001 Cowan St., Ste. A & B
Irvine, CA 92714
(714) 833-8710

Walt Disney Computer Software
500 S. Buena Vista Street
Burbank, CA 91521
(818) 567-5360

Wright Enterprises
Hudson Road
Temple, NH 03084
(603) 878-1491

Xetec, Inc.
2804 Arnold Road
Salina, KS 67401
(913) 827-0685

Xiphias
Helms Hall
8758 Venice Blvd.
Los Angeles, CA 90034
(213) 841-2790

Upcoming CDTV Products

Air Traffic Controller
Logic Plus
Angel of the City
Tiger Media
Blockbusters
Domark
CDTV Disc Jockey
Sassenrath Research
CDTV Sports Football
CDTV Publishing
Drakken
Infogrames
Dungeon Master
FTL Games
Family Drug and Poison Information
NE Louisiana Univ.
Fun School (5-7)

Europress Software
Fun School (over 7)
Europress Software
Grolier's Electronic Encyclopedia
Xiphias
Guinness CDTV Disc of Records
CDTV Publishing
Herewith the Clues
Domark
Indiana Jones
CDTV Publishing
Jack Nicklaus at Muirfield Village
Accolade
Living Book Series
Digraphic
Loom
CDTV Publishing

McGee
Lawrence Productions
Murder Off Miami
Domark
Pacmania
Domark
Secret of Monkey Island
CDTV Publishing
Shadow of the Beast III
Psynopsis Limited
Spy vs. Spy
CDTV Publishing
Time Table of the Arts
Xiphias
Trivial Pursuit
Domark

We're Sorry!

To make room for an **EXTRA** measure of Amiga & CDTV coverage this month, we were forced to delete the full-page order form that normally appears on this page.

To order any of the quality AC line of Amiga products, please use the convenient tear-out card found between pages 16 & 17 of this issue. For faster service, pay by Visa or MasterCard and call toll free **1-800-345-3360** from anywhere in the U.S. and Canada!

CDTV Consortium

by Timothy Duarte

CDTV (Commodore Dynamic Total Vision) is ahead of its time. It's an effective multimedia tool for presentations, reference, education, or entertainment.

Essentially, the CDTV unit consists of the same components as a basic Amiga 500 computer, but it is equipped with a CD-ROM drive. At an additional price, CDTV transforms into a full-blown Amiga with the Professional Bundle expansion kit. The kit includes a keyboard, mouse, an external disk drive which reads and writes to 3.5-inch floppy disks, AmigaDOS, and an Amiga 500 manual. An external floppy drive can be connected to the Amiga, but the main storage medium for CDTV is the popular compact disc. At this point in time, the compact discs are only in the ROM stages, that is, the unit can only read the data from the disc (Read Only Memory); the ability to write data to the disc is not yet available. In the future, we will most likely see this feature.

The Compact Disc

Why the compact disc? It has many advantages over 3.5-inch floppy discs. It can hold a tremendous amount of data on a single disc. A single CDTV disc can electronically store 550MB of data, equivalent to thousands of pages of typed text stacked stories high. The

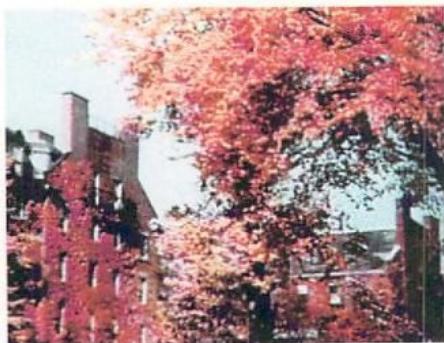
compact disc is predicted to be the next wave of storage medium. Within the next two or three years, it will soon replace cartridge-based software, which is the current ROM storage medium for home videogame systems such as Nintendo and the Sega Genesis. Look for add-on CD-ROM drives for these platforms in the next few months. Speaking of add-on CD-ROM drives, Commodore plans to release a CDTV-compatible drive for the A500. This should be a great help for sales and it will officially unite the owners of Amiga computers and CDTV. There's a lot to come in this area of computing. As the compact disc becomes more dominant as a software medium, CDTV and CD-ROMs for the Amiga will become more popular and mainstream. In the meantime, while Commodore organizes and plans their attack, let's take a look at just a few of the "essential" CDTV titles that are currently available.



Above: The main menu screen of The New Grolier Electronic Encyclopedia.

Left: An image of the fall season in Boston, MA. One of the many extras of American Vista: The Multimedia Atlas.

Right: A hard-bound dictionary cannot compare with The American Heritage Illustrated Dictionary. This picture of the pelican accompanies the entry.



The New Grolier Electronic Encyclopedia

This is one of the titles packaged with the CDTV unit. Practically every household in the U.S. has an encyclopedia set. An encyclopedia is a useful tool and this CDTV version is fun to use. Once the disc is loaded, the main screen displays each letter of the alphabet. Let's say you are doing a report on music. Using the infrared controller, point on the letter M, then U, and so forth. For a shortcut, the asterisk can be used as a wildcard and it will display all entries that begin with those letters. No more fishing to find the right volume—it's all on one CD.

As I was using the encyclopedia, my brother, who is a fan of John F. Kennedy, called on the phone. I told him about the CD and entered "Kenn*." The entry offered lots of information and text, as well as an image of JFK. I clicked on "sounds," and excerpts from JFK's popular inaugural address came from the monitor's speaker. Needless to say, my brother was amazed.

One great feature about this CD-based encyclopedia is that it doesn't take up a whole bookcase in your house. Plus, a new CD, with all-new, updated information, can be purchased each year to prevent your encyclopedia from being outdated.



Lemmings

The classic "rescue the little varmints" Amiga game by Psygnosis has made its way to CDTV. In fact, it's also packaged with the CDTV unit. In the game, you must save the Lemmings from their ultimate doom. Guide them around obstacles, have them dig tunnels, build bridges, or whatever it takes to get these little critters safe and sound. It's cute and addicting to play. It was a wise choice in bundling this title with CDTV. *Lemmings* is definitely one of the best games in Amiga history.

The American Heritage Illustrated Dictionary

This title works on basically the same easy-to-use principles as the encyclopedia mentioned above. It can also speak and pronounce the word and definition. If you don't know the meaning of some of the words in a given definition, you can click on that word and it will define it for you. Never skillful at flipping pages to find entries in a regular dictionary, I enjoy punching in the word and letting CDTV do the searching for me. I spent a lot of time looking up words for the fun of it, and kids will, too.

Brian, the illustrator for *Amazing Computing*, was searching for a picture of a pelican a few days ago. I loaded up this CD, and typed in pelican. It gave me the definition, and the option to see a visual image. I paused the image and called him over. It was just what he was looking for. Brian used the image as a model and created a cartoon image that accompanied the review of *Pelican Press* in last month's issue. This CD-based dictionary has become a handy and useful tool in our office.

American Vista: The Multimedia U.S. Atlas

The manual for this electronic atlas consists of a mere two pages. Even a child with no computer experience could operate it. Like most CDTV programs, *American Vista* is straightforward and easy to use.

There's even a tour that explains the program to the user. Each of the 50 states can be selected and a number of choices, such as topography and population, can be made from the main menu. Not only does *American Vista* provide on-screen maps, but it provides information on symbols, facts, and images of each state. Checking out the home state, I enjoyed viewing the foliage-filled images of Massachusetts.

A few weeks ago, I received a letter from a pen pal in Crum, WV, and thought locating this town on the West Virginia map would be an ideal test. I loaded up the state map, scrolled

around a bit, and found it in less than 10 seconds! I then tried to find Marlow, a small town in New Hampshire. I wasn't successful, but it wasn't even listed in the index of my Rand McNally Atlas. The entire map cannot be displayed on the screen at once, but some sacrifices have to be made. Users scroll around the map with the controller keys. This disc would also be great for educational purposes—especially for schoolchildren who are studying the states in social studies or geography. It also includes statistics, state flags, state flowers, license plates, and more.

For Further Reading

"Amazing Computing" has been discussing the power of CDTV for over a year. If you are hungry for more information about CDTV coverage in AC, refer to these back issues.

"CDTV," *Amazing Computing*, V.6.6, June 1991, pg. 47

"World Vista," *Amazing Computing*, V.6.12, December 1991, pg. 75

"Garden Fax," *Amazing Computing*, V.7.1, January 1992, pg. 84

"The 1992 International Winter Consumer Electronics Show," *Amazing Computing*, V.7.3, pg. 71

"New Products and Other Neat Stuff," *Amazing Computing*, V.7.5, pg. 14

•AC•

Product Information

CDTV

(includes Lemmings and The New Grolier Encyclopedia)

Price: \$799

Commodore Business Machines

1200 Wilson Dr.

West Chester, PA 19380

(215) 431-9100

Inquiry #248

CD1500 Professional Bundle

Price: \$249

Commodore Business Machines

1200 Wilson Dr.

West Chester, PA 19380

(215) 431-9100

Inquiry #252

The American Heritage Illustrated
Encyclopedic Dictionary

Price: \$69.95

Xiphias

Helms Hall, 8758 Venice Blvd.

Los Angeles, CA 90034

(213) 841-2790

Inquiry #249

American Vista: The Multimedia Atlas

Price: \$79.95

Applied Optical Media Corporation

1450 E. Boot Rd. #400

West Chester, PA 19380

(215) 429-3701

Inquiry #250

Please Write to:

Timothy Duarte

c/o Amazing Computing

P.O. Box 2140

Fall River, MA 02722-2140

More on the way

There's quite an impressive library of CDTV titles. I don't have enough room to describe some of my other favorite discs—*The Guinness CDTV Disc of Records*, *The New Basic Electronic Cookbook*, *Space Wars*, *NASA...the 25th Year*, *Falcon*, and more.

The potential for CDTV has yet been tapped. Inform your friends and neighbors about CDTV. Once they get to experience CDTV, their interest will surely be sparked. To find out where the nearest CDTV dealer in your area is, call (800) 66-AMIGA. Commodore is also offering a free CDTV "Welcome Tour" videotape. All you have to do is call and Commodore will send you one.

BABY'S BL

Amidst a flurry of publicity, Commodore's matt black Amiga CD "baby" was officially launched at the recent CES Show in Chicago. And the CD-TV, as it is known, will expand and extend the Amiga, threatening to take it one step further to the realms of the fabled CDI. CU reports back from CES and exclusively presents the first official photos of the production model.

Suddenly the complete home entertainment system is within our grasp, combining computer, music, videos and stereo sound. The future has been seen and it is the Commodore CD-TV.

Quite simply, it could move computer gaming into a new age. And Amiga owners already have a huge advantage over other computer owners. Commodore plans to release upgrades for the 512k and one meg Amigas, giving them

full CD-TV capabilities.

So what will the Commodore CD-TV do? It can run Amiga CD ROM software, play CD quality audio while displaying graphics, play standard CDs, link to an Amiga computer and other musical keyboards. It will enable huge amounts of graphical and sound data to be stored, adding an amazing new dimension to gaming. All that from a machine which looks more or less like a standard video cassette recorder.



TECH SPEC

*The CD-TV's circuitry is based on existing Amiga designs plus custom chips for CD-ROM interface and infra-red control

*One Megabyte RAM, 2K non-volatile RAM for system, 512K ROM including audio CD routines.

*Internal intelligent video slot, for optional genlock etc, 15 pin edge connector, DMA networking slot.

*Analog RGB, Digital RGB, Composite video, component video Y-C, RF modulated, optional genlock capabilities.

*Graphics: 320*256 non-interlaced 32 colours; 640*256 non-interlaced 16 colours; 320*512 Interlaced 32 colours; 640*512 Interlaced 16 colours; video display 512 lines, 50Hz, 6 bitplanes, 8 sprites per scanline.

*Ports: Centronics, RS232, external floppy disk, controllers,

MIDI out, stereo, headphones, personal RAM card for up to 64K status storage, to offer a total of 20 options.

*Console-type control pad and two select keys.

*CD-ROM specification: Sony/Philips type CD-ROM; Data readout 153-171 kb/second (2 Mbytes/second in burst mode); average access time 0.5 seconds; data capacity, 540 Mbytes; capable of sound mapping Amiga-generated sound over CD sound.

*Infra-red controller featuring 10 function keys plus shift key *It also features a plug-in smart card capability.

ACK IN TOWN

Many US and UK software houses are investigating producing new software or upgrading existing games for what could be the ultimate multi-media, multi-player games machine so far.

Here, CRL is working on a new version of *Herewith the Clues*, the whodunnit game based on the 1930s crime dossier by Dennis Wheatley and Virgin Mastertronic will release its interactive educational game *North Polar Expedition*. Other software houses remain tight-lipped. In the USA LucasFilm is known to be working on CD-TV projects.

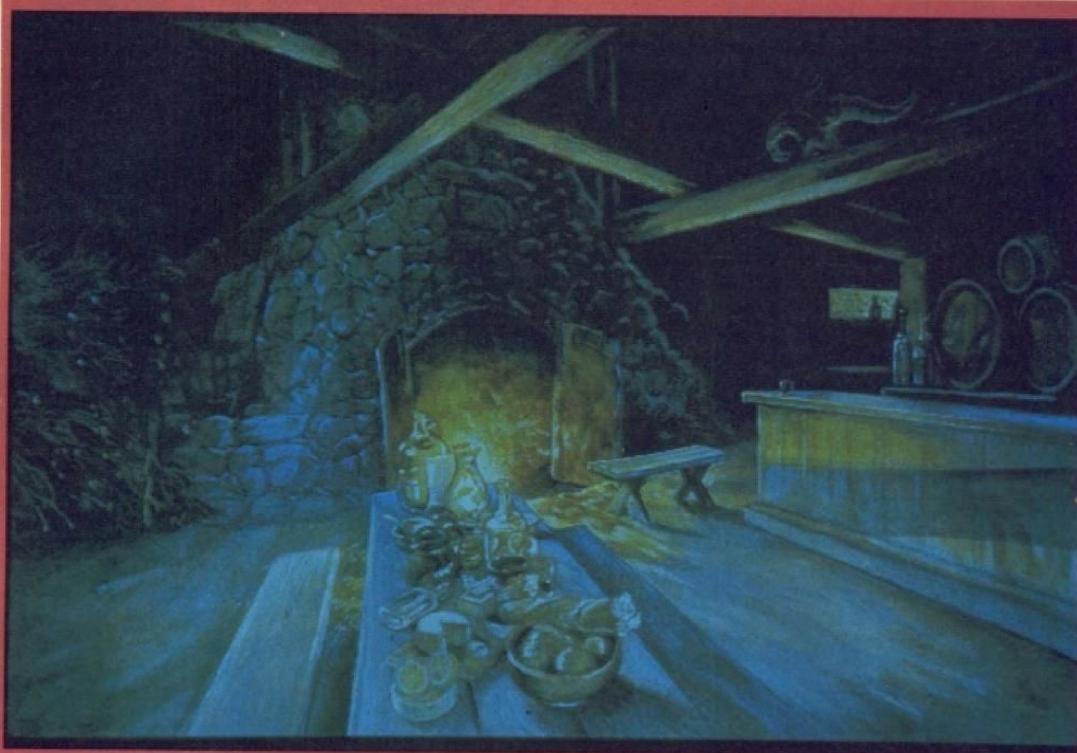
Meanwhile, Commodore itself is confidently predicting a whole new category of family games.

This amazing Commodore CD-TV will probably be launched in the UK this September. The price is thought to be around £600 for the basic unit.

Disks will sell in America for between \$30 and \$100.

The CD-TV was previewed at the Summer Consumer Electronics Show in Chicago. Nolan K. Bushnell, general manager of Commodore's recently formed Interactive Consumer Products Division, says: "CD-TV is the next logical step in the evolution of consumer electronics. It provides capabilities far beyond any currently available entertainment system, yet it is remarkably simple to use. If you know how to change TV channels with a remote control, you can take full advantage of CD-TV."

Bushnell adds: "We do not think of CD-TV programs as software. Instead the concept that drives CD-TV is that of an electronic interactive, instantaneously accessible library. We will have fiction, non-fiction, reference and entertainment titles that provide consumers with a truly unique source of information and entertainment."



FORTHCOMING ATTRACTIONS

Already there's been plenty of CD-ROM action from companies like EI, Mirrorsoft and Sierra, and it looks like their classics will end up on CD-TV as well.

From Sierra there's *Heart of China*, a thirties style adventure set in the orient. And Sierra are considering revamping some of their old big sellers like *Mother Goose* and *Kings Quest*.

There's also the likelihood of *Rocket Ranger* and *Defender Of The Crown* appearing from Mirrorsoft, though this has not been confirmed yet.

Titus are rumoured to be converting *Dark Century*. Their new signing with Disney may also open new channels, as the CD-TV could present a new depth of real time animation and sound which could generate some interest at Disney HQ.

Definite releases include *The Case Of The Condor*, a period, icon-driven sleuth adventure. For people who wish to bear away from the games side there's the CD recipe book shown here, atlas and encyclopaedias.

ORANGE, ORANGE ROUGHY



ROSEMARY

Or use:

Basil
Oregano

1/4 c. orange juice
4 orange roughy fillets
(approx. 6 oz. ea.)
2 Tbs. olive oil
1 Tbs. dried rosemary
1 Tbs. coarsely ground black pepper



BEAUTIFULLY COMPACT . . .

Commodore's Amiga-based CD entertainment system, CDTV, promises to bring the fabled interactive movie one stage closer to reality. Rik Haynes takes a look at some CDTV games in development. . . .



Price point policy. Will Commodore release the CDTV for £599? Find out in next month's issue of CU Amiga. . . .

The CD version of Battle Chess has improved graphics, sound and gameplay (FM Towns version shown). . . .



The original *Battle Chess* from Interplay in California mixed the classic board game with some of the best three-dimensional graphics yet seen on the Amiga. When its fantasy medieval chess pieces attacked each other, their one-on-one battles were played out in entertaining animation sequences.

The pending CDTV version promises even more. "The 35 minute tutorial is a major enhancement," says Troy Worrel, producer of *Battle Chess CD* at Interplay. This innovative show combines over 9000 frames of animation, text, digitised speech and an original professionally composed music score to create a mini-movie for connoisseurs of chess. The tutorial details the history and rules of chess and introduces each piece to you in turn. It's a great way to learn about this ancient strategy board game. The text was researched by a script writer who normally works on movies, television situation comedy shows and comic books. Did you know the Queen couldn't move around the board?

Battle Chess CD also incorporates a new and improved interface, animated graphics, sound effects and background scores. It contains 10Mb of graphics compared to the 4Mb found in the original. All the gameplay features from the original are still included such as 10 levels of play, an opening library of 30,000 moves and the chance to play against the computer or a friend. I will take four months to produce. David

"Darkness descends over the battlefield. Thunder cracks overhead and lightning flashes shadows upon the chequered board. There can be no more delay. You make your choice. A pawn marches forward against the darkness opposing you."

Troy and the gang are going back to rework some of the combat sequences, and they hope to inject more humour into these short bursts of battle. For instance, Interplay wants some of the knights to be on horseback. Eventually there will be six different walks and 35 combat sequences.

New digitised stereo sound effects have been added and roughly 30 minutes of CD-quality audio are included. Five different music scores change during the game depending on how well you are playing. "It's up-beat when you're winning. Almost a funeral march when you're losing," Worrel confides. A small local band from Santa Anna went into the studios to record these tunes. Synthesizers did a majority of the work. For the tutorial, Interplay used six professional actors to record the speech spoken by each chess piece. This digitised discourse may be converted over to other languages in the future. The sampled sound effects are either home grown or come from the compact discs from Sound Ideas in The States. The original FX had to be trimmed down to take up less space on the floppy disk, so the audio has to be re-digitised to bring up the quality on the CD version.

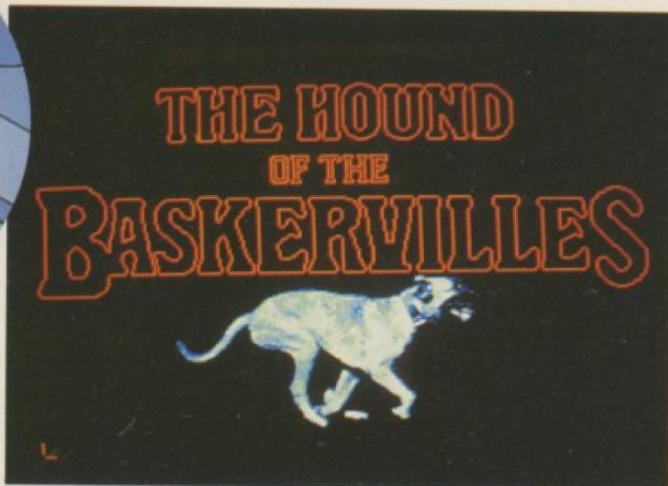


Brian Fargo, President of Interplay, attributes the company's success to a talented team of programmers, artists and professionals who spend many painstaking hours on the design, production and quality assurance of each individual game. "We converted Battle Chess because it's a mass market, universal game that uses the power of the CDTV to its fullest," states Worrell. Since it was founded in 1982, Interplay has produced many Amiga games including *Tass Times in Tone Town*, the *Bard's Tale* series and *Neuromancer*.

Interplay feels that CDTV is on the cutting edge of new technology. The fact that it is going to be the first in the market place should help it tremendously. Interplay's premier CDTV product will be available in the spring, no price has been set. *Battle Chess* will be the first of many CDTV titles from Interplay, so watch this space.

CD-TV

Welcome to the world's first column devoted to the CDTV. Over the coming months CU Amiga will introduce you to the concepts of multi-media, full motion video, cyber comics, interactive imagination and digital doctors. The hyper hits will be perpetual. If you have any questions or comments you can contact me by writing to Rik Hanes, CU Amiga, EMAP Images, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.



Inset: The Case of the Cautious Condor. I say, can you solve this case of the mysterious CDTV? Its brilliance is elementary, my dear Holmes....



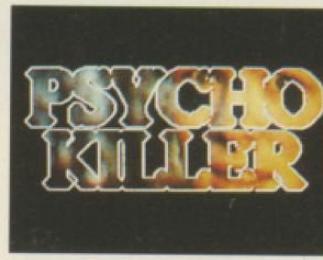
Women in Motion from On-line Entertainment has nearly 100mb of naturists pictures. The force of CDTV means that Eadweard Muybridge's celebrated nudes will be animated for the first time in their history. The package will be able to accept DPaint 3 files, claim its makers, and it will be targeted at the (semi) professional animator....



OFF-BEAT TRIO FROM ON-LINE

On-Line Entertainment will have three CDTV titles, each priced at £29.99, ready for launch next month thanks to its versatile DUNE authoring software.

Based around Sir Arthur Conan Doyle's classic detective novel, *The Hound of the Baskerville* is an interactive investigation filled with journals, newspaper cuttings,



On-line Entertainment uses the DUNE system to produce CDTV titles such as *The Hound of the Baskervilles* and *Psychokiller*....

NEW WAVE WONDER

Commodore
Dynamic Total Vision is set for a country-wide 'Dixons' debut next month

(although we'll believe it when we see it). The giant electronics retailer has agreed to stock the CDTV in over 100 stores around Britain. Although the launch price was to have been £699, Commodore have announced a cut down price of £599.

The first stocks should be selling by mid-March.

Additionally, Commodore was showing an add-on CD-ROM drive at the Winter Consumer Electronics Show in Las Vegas last month. The A690 effectively turns existing 1Mb Amiga's into CDTVs. The price expected to be between £250 and £350.

Prepare to meet Psychokiller – will this release from On-line Entertainment be the first camcorder movie to be turned into a game? Shot on location around their offices, it has taken the On-line crew, fronted by Fergus McNeill, around six months to edit this CDTV release. Psychokiller will be one of three CDTV releases from On-line....

telegrams, letters, police reports and other clues. On-Line says the massive capabilities of the CDTV – digitised sound, images and animation – are used to provide an atmosphere heavily laden with suspense and drama.

Women in Motion is the first time the historic photographic images of Eadweard Muybridge have been brought together in a 'Moving >

BEAUTIFULLY COMPACT . . .

➤ Film'. With nearly 100Mb of graphics, this product gives a unique insight into the moving form. These pictures have been used by great animators, including Disney, as a basis for their work in the past. According to On-Line, artists will be able to use paint packages like *DeluxePaint III* and play around with these 'arty' images of women walking, sitting and dancing in the nude. The final version will include narration by a well-known BBC announcer.

One day last year, Fergus McNeill and a group of friends travelled to the local countryside and shot an off-the-wall shocker movie using a normal camcorder. It took them over six months to make this video into a fully interactive adventure for the CDTV. *Psycho Killer* is the result. Who knows? Jeremy Beadle may do the same thing with those embarrassing home-video clips from *You've Been Framed*.



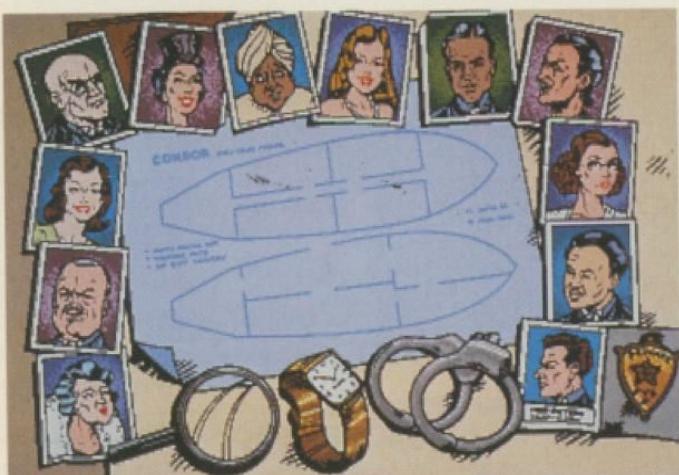
Tiger Media employs cartoon graphics rather than digitised graphics in its CDTV products.

PUT IN THE PICTURE

"CDTV is the next logical step in the evolution of consumer electronics," says Nolan Bushnell, general manager of Commodore's Interactive Consumer Products division in North America. "It provides capabilities far beyond any currently available entertainment or computer system, yet is remarkably simple to use. If you know how to change TV channels with a remote control, you can take full advantage of CDTV." Bushnell was co-founder of Atari, but we won't hold that against him. "The concept that drives CDTV is that of an electronic interactive, instantaneously accessible library. We will have fiction, non-fiction, reference and entertainment titles that provide consumers with a truly unique source of information and entertainment."



Commodore's new machine will be perfect for the simulation enthusiast, allowing for more detail and more space devoted to samples. The case of the *Cautious Condor* will be the first in a series of airwave adventures for the CDTV.



THE CASE OF THE CAUTIOUS CONDOR

Voted 'Best Hit Software' by Japan's leading games magazine, *Condor* from Tiger Media is a 1930s-style murder mystery drama which uses vintage comic-book cartoon-drawn characters and scenes.

"Condor is the first title to be developed specifically with the interactive capability of optical disc platforms in mind," says Laura Buddine, President of Tiger Media. The LA-based company has been at the cutting-edge of CD development for the past five years. Condor is the first 'Airwave Adventure', a full-line of interactive titles to be developed by Tiger Media in the coming months.

Airwave Adventure takes place aboard the Condor, a luxury airliner fashioned after Howard Hughes' *Spruce*

Goose'. There has been a murder, all the suspects are aboard the plane and the player has 20 minutes to find the murderer. Using the CDTV's remote control, the player moves the detective from room to room, meeting the characters on the plane and gathering clues. Each segment lasts about two minutes, during which time the detective tries to establish the means, motive and opportunity for each character. There are more than 1500 paths that a player can follow, however, only one leads to the murderer.

"This title is 100 times larger in data and graphic capacity than any other title ever produced for any format," claims Tiger Media. "There are three hours of CD-Audio, more than 700 originally drawn colour pictures and 200Kb of program."



Set in the 1930s, this airwave adventure from Tiger Media features a plane inspired by Howard Hughes' *Spruce Goose* . . .

FRACTAL UNIVERSE

Progressing from an idea for a CDTV title to a finished product isn't an easy task. Jolyon Ralph tells us his story.

EUREKA!

The idea for *Fractal Universe* came about after a local ICPUG (Independent Commodore Products Users Group) meeting where ICPUG member David Annal gave a fascinating talk on Fractals including a slide show with music of absolutely stunning fractal images with backing music. I had played with *Mandelbrot Explorer* and other fractal programs on the Amiga and had come nowhere near producing fractals of that quality.

I borrowed some books on fractals and I became hooked. I approached David Annal and discussed the idea of doing a CD title on fractals. It could be both a multi-media 'book', explaining about fractals and how they are generated, and a set of generators for creating your own fractals. The same day David finished the overall plan for the product, a large flow-chart on A2 graph paper, and work was started, in September last year.

WHO'LL SPOOL?

The product plan called for long sequences of digitized audio, and a rather complex slide show with background music. I decided from the start that most of the work for this project should be done with an authoring system. At the time AMOS didn't support spooled sound directly, which was vital for the digitized audio we needed. *Director II* from The Right Answers Group seemed the best choice.

The first work revolved around the fractal generators. These were written in AMOS as separate programs, as there was no way any true authoring system would create a fast enough fractal generator. The Fractal Tree generator written in AMOS worked a treat and was the first part of *Fractal Universe* to be finished.

After using many other CDTV products I was a bit concerned with the input and control systems they

used. While some were fine with the Infra Red control, others used the Infra Red control as if it was a mouse, that did not work well, and most ignored a mouse or keyboard completely if connected.

On an Infra-Red control the movement keys should act like cursor keys, moving a highlight around to select the option you want. This was very tricky to code, as all the Infra-Red does is move the mouse pointer around the screen.

In both AMOS and *Director II* I had to write some code to measure the current mouse position and detect whether there was any movement since the last check. These movements were converted to cursor key movements. This meant it was easy to test on the Amiga 3000 used for development with the cursor keys. I made the mouse pointer invisible to hide its erratic movements, and it all worked fine.

THE GENERATION GAME

After the user-interface had been written and we had decided on a screen layout, it was time to start the most time consuming part of the project: data collection. David had a few disks of fractals that he had generated, but hardly enough for our project. We needed a lot more fractals for our art gallery, so the whole family got involved in generating fractals, using the PC program *Fractint* to generate 640x480 fractals in 256 colours. Even when converted to 320x512 Interlaced HAM images on the Amiga the quality was far better than any fractals generated on the Amiga.

The fractals, saved out as .GIF files to low density 3.5" PC disks from our 386 PC were read on the Amiga 3000 using *CrossDOS*, and converted with the excellent *Art Department Professional* to standardIFF files.

While the fractals were being generated on the PC the next stage was to work out how to integrate the music with the pictures. This was the most complex, and in the end most expensive stage of the process. We wanted a continual show of pictures with music in the background. Our first thought was to use a Soundtracker tune in the background. This was, by far, the easiest way to solve the problem, but loading in high-resolution 16-colour images left almost no memory free for even a short Soundtracker tune.

The only way to solve the problem was to convert the music into one long IFF 8SVX sample (It's over 2.5Mb long), and use *Director II* to spool the IFF sounds direct from disc while also loading in the pictures.

Meanwhile the rest of the project was starting to take shape. Scripts were written and rewritten several times. Pictures to go along with the scripts were either drawn in *Deluxe Paint III* or IV, or scanned in with a JX-100 colour hand scanner, or JX-300 A4 scanner.

November was approaching and with it the World of Amiga show at Earls Court. Commodore had offered us a free booth on their stand to show our CDTV title, so we had to rush to get our first prototype disc ready to show.

ONE TWO, ONE TWO

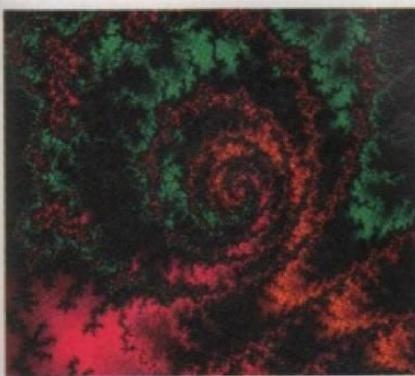
The sections explaining the history of fractals, and what fractals actually are were scripted and the voice-over was recorded. Our first experiments with voice-over proved that our old Teac tape deck was far from suitable for multimedia work. After hours of looking through HiFi journals and twenty minutes walking down Tottenham Court Road, we decided on the Sony TCD-D3 Portable DA (Digital Audio Tape) recorder, which improved the voice-over quality dramatically. We had decided that recording voice-over in a studio was an unnecessary expense, so the voice-over ended up being recorded during a quiet afternoon in a spare bedroom at our house!

All the voice and pictures were integrated for the demo, and we prepared to cut our first CD. The product had grown to 79Mb by then, 1Mb short of filling the 80Mb hard drive I was using. More expense followed - we bought a Fujitsu 330Mb hard drive to finish the project.

Finally, a few days before the show was due to start, we arranged to get our first test disc cut. One-off test CDs, called Gold Discs because they are written onto write-once Gold CD's, can cost between £200 and £500 each to cut, so you don't want to do this too often!



These are some of the wonderful fractals that can be produced with *Fractal Universe*.



ERROR IN THE SYSTEM

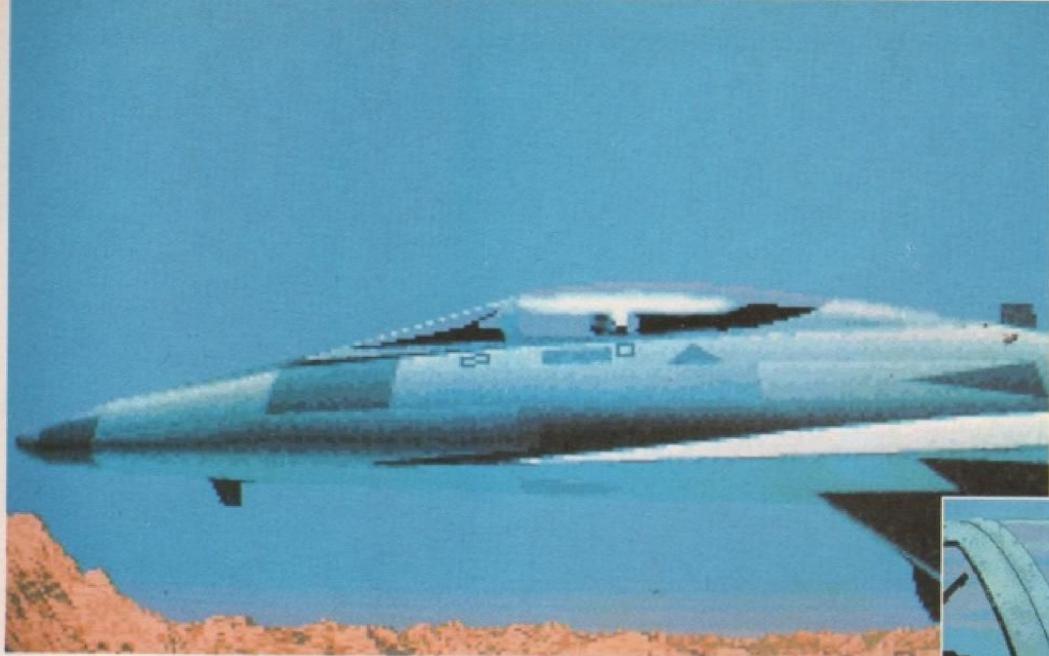
But when we cut the disc, we put it in a CDTV, pressed play, and to our horror it didn't work! Instead of the sound playing properly with pictures loading the sound glitched and paused every time a picture loaded. After fiddling with the sample rate and two gold discs later we had it fixed, but not in time for the World of Commodore show - *Fractal Universe* was demonstrated there running off the hard disk attached to the CDTV!

After the show work slowed down a little. We moved into new offices in January, and slowly *Fractal Universe* came to completion. All the audio was resampled with the AD1012 12-bit sampler board which was far superior to the Audio Engineer we were using previously.

When a CDTV product is finished it has to be sent to Commodore Quality Assurance (QA) in the States, where it is checked for obvious bugs and problems. After two more Gold Discs we had finally removed all the bugs they found, and some they missed too. The artwork was done and sent off to Germany for the first production run, 1000 units.

Nearly a month later (and 10 days late) five large brown boxes filled with CDs arrived. At last *Fractal Universe* was finished and is now in the shops!

It is available at £29.95 for CDTV/A570 from Almathera Systems (081 683 6418).



'The interactive product will become an integral part of the shooting of a film,' speculates Psygnosis boss, Hetherington. 'We're not trying to replicate a movie on the computer screen. There are only certain parts in a movie that are relevant to a game. We'll go for things that we can capitalise on. We're trying to run in parallel using clips from the film to set the scene. It has to be a game in its own right reinforced by elements from the movie.'



GOING TO THE MOVIES

While other developers talk about 'interactive movies', Psygnosis has a prototype running on CDTV. Rik Haynes grabs a front-row seat and starts stuffing the popcorn!

As a games company, Psygnosis are more likely to make a good interactive product than say Warner Brothers or Columbia Pictures, claims Ian Hetherington, its co-founder. 'With our CD-based Fractal Engine we can do Star Wars, Top Gun, The Last Starfighter and anything of that ilk. We'd have a lot of difficulty doing Three Men and a Baby though.'

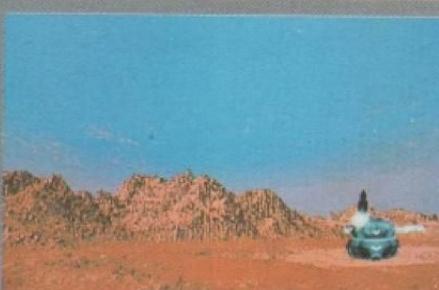
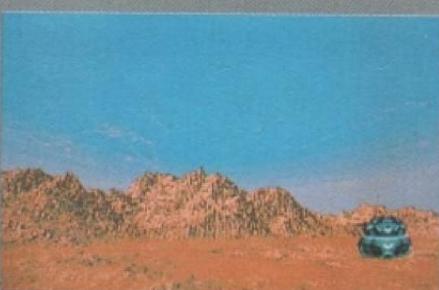
Psygnosis has pumped over £100,000 and six months into this exciting new project for the CDTV.

The Fractal Engine is, in fact, hardware independent. It's a 'software solution' adaptable to any CD-ROM platform. No special video compression hardware (used to capture and replay ordinary video or movie footage) is required to produce the film-like images seen here. The first Fractal Engine game, entitled *Planetside*, will run on any CDTV.

'We can call this full-screen full-motion video at 20 frames per second,' Hetherington explains. 'Whether you would describe

it as video is debatable. Given that you've got 320x200 with 32-colours it's as good as anything else is going to be. We cannot afford to wait for one or another video compression technique to succeed. You hear an awful lot of crap in the CD marketplace. There's a lot of people in this business dreaming about what sort of hardware they'd like to write for.'

'There are probably half a dozen companies around the world working hard on CD projects,' according to



Putting the video-style graphics together requires interactive graphics, 3D modelling and the odd bit of visual trickery. Psygnosis uses whatever graphical options it thinks appropriate - from hand-drawn sprites and computer-generated polygons to ray-traced 3D models and fractal-generated landscapes. Any combination of these graphics primitives linked in 3-Space produce a huge variety of imagery as you can see. *Planetside* is being produced by: David Worrell (Project Leader), Jim Bowers and Neal Thompson (Graphics), Graham Everett and John Gibson (Programmers).

Hetherington. 'Cinemaware has given up. AIM is basically writing CDI product. We have the only viable CD-ROM technology. Companies who have sat back and waited are already 18 months behind us.' >

GOING TO THE MOVIES

'They will never catch up. It's nothing to do with games design at this stage. It's a pure technology fight. The people with the best technology will win.'

Not everybody fulfils their dreams. Cinemaware, a pioneer of the 'interactive movie' recently collapsed. Hetherington believes he has learnt from other people's mistakes. 'I think the whole "interactive movie" concept is still-born,' he reveals, 'It won't happen. People are expecting to be Robocop or Tom Cruise. Sorry, they ain't. We don't want to con people.'

Planetside is pitched at the middle-ground between an arcade flight-sim and *Top Gun*



The plane arrives on the planet's surface from outer space via an orbiting space station. You'll see pods dropping down onto the planet and you'll control things like satellites and repair vehicles.

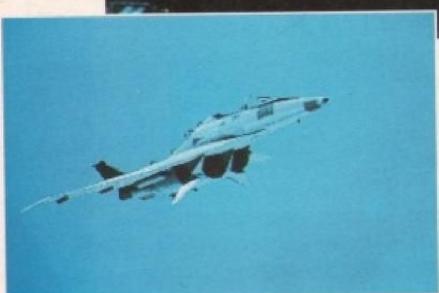


Understandably, Ian Hetherington refuses to go into much technical detail about how these amazing graphics are actually created. It's a mixed bag of graphics primitives created via realtime and off-line plotting and processing. What you see on the screen is a composite of a whole number of things that are going on inside the machine.

action film. 'Interactive movies are going to come in various forms,' says Hetherington. 'We don't like conventional game structures spliced into video-retrieval. The video bits quickly become boring like in *Dragon's Lair*. A CD-game has to be 500-megabytes of graphic and audio data organised in way that it is compelling to go through. You have to make the play elements a reward rather than a special effect.'

'We'll wean people through the game. It's organised like a movie. The video-style sequences are there to specifically link interactive portions of the game. The "video-game" will progress whether they interact or not. There are no gaps between the theme, they'll feel as if they're playing the movie.'

One of the greatest problems for Psygnosis is how they should communicate to the player that the level of interactivity is varying. Success will herald the next generation of Amiga games. Get it wrong and *Planetside* will either bore the gamesplayer rigid or shock a couch potato into cardiac arrest.



Psygnosis create the visuals in *Planetside* using *Sculpt Animate 4D* and *Deluxe Paint III* running on Amiga 3000 micros with massive memories and filled-to-the-brink hard disks.



How long does it take to produce a game like this? Six months to build and assemble and three months to storyboard and clean up the interactivity. If you don't have a quarter of a million pounds, don't bother.



picture this

From next year, those embarrassing holiday snapshots will be stored 'forever' on compact disc. Rik Haynes finds out why the CDTV will become the latest accessory for the dedicated photographer and what the creator of the movie Blade Runner is up to on Commodore's new baby...

The way people store their treasured family photos is about to enter the electronic age. A new deal between Commodore and Kodak has brought another useful addition to the CDTV family of general applications, whereby the CDTV will be fully compatible with Kodak's new Photo CD system which converts conventional photo-

tographs into a convenient electronic format on compact disc. Just think, you'll never have to worry about dust, cat hairs or spilt coffee ruining your Wedding Day or Birthday pictures ever again!

As exclusively reported

in the November 1990 issue of CU Amiga, Photo CDs, which are planned for introduction in June 1992, can store up to 100 35mm photographic images on writeable CD-ROM discs. Both professional and amateur photographers will be able to insert the Photo CD discs into the CDTV player and view their high-resolution photographs on standard television sets.

Kodak jointly developed the system

with the Dutch electronics giant Philips. The first dedicated Photo CD player, which can also play normal audio compact discs, is expected to be released early next year for just under £300. Photo CD is also compatible with the forthcoming CDi players, the main rival to CDTV, due for launch in North America and Japan before the end of 1991.

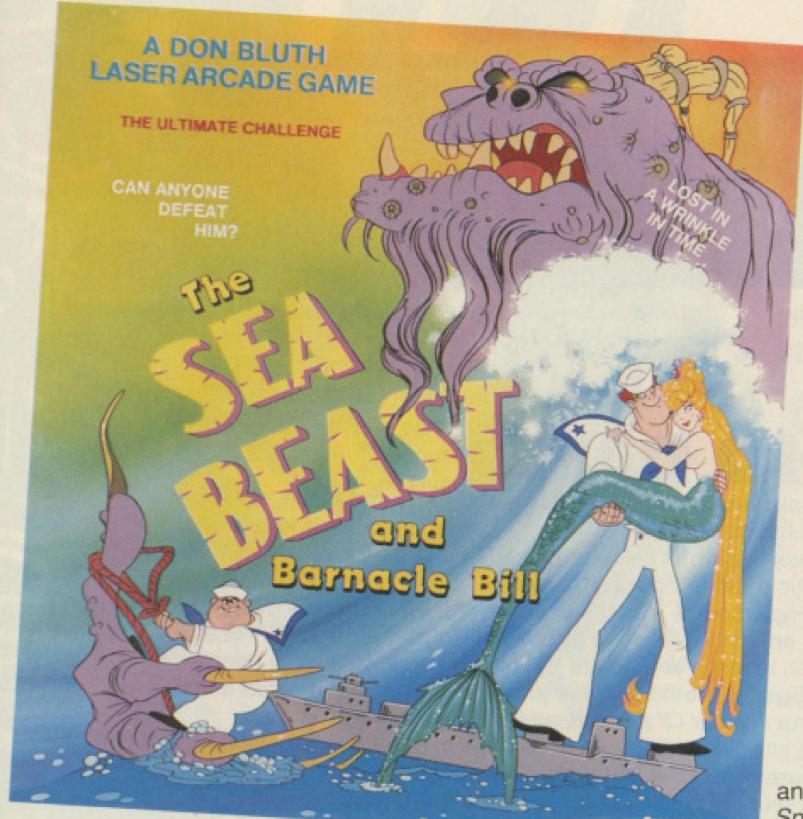
Once the processing facilities are up and running, Kodak reckons the cost of converting 24 35mm exposures to Photo CD format will be less than £10. Commodore thinks Photo CD compatibility will be important feature for the CDTV which will help drive consumer sales of multimedia and the CDTV player.

BLUTH TV

First there were the visually-enthralling interactive cartoons *Dragon's Lair* and *Space Ace*, now the Interactive Media subsidiary of Sullivan Bluth is working on two new titles for the CDTV.

Maelstrom is a co-operative effort between the innovative game designers at Sullivan Bluth and the vision of renowned futurist Syd Mead. Mead gained fame for his extraordinary work on the movies *Blade Runner*, *Tron* and *Short Circuit*.

Sea Beast, the second title due on CDTV from Sullivan Bluth, was originally supposed to be the third laserdisc coin-op, but a drop in demand made the



WHAT'S CDTV? Just in case you've never heard of this machine, the CDTV (Commodore Dynamic Total Vision) is the first of a new generation of consumer electronics products to combine audio, video, graphics and text in a style of product that is set to change the way people are educated, informed and entertained. Costing sub-£600, the CDTV player is an Amiga A500 with 1Mb RAM and CD-ROM drive restyled to look more like piece of hi-fi equipment. The CD-ROM drive allows software companies to store huge amounts of data, 550Mb or the equivalent of nearly 700 floppy disks, on a single compact disc. Commodore contends an add-on CD-ROM player, allowing existing Amiga owners to upgrade to CDTV status, will be released this autumn for around £300. For more details on the CDTV contact your local high-street dealer or a reputable mail order company.

company decide to scrap the relaunch. A concept by Don Bluth himself, *Sea Beast* allows gamesters to assume the role of Barnacle Bill in his efforts to emancipate the lovely Serena from the clutches of the Sea Beast. Bill travels through 'wrinkles in time' and experiences non-stop action in many eras such as the dinosaur days, the wild west and the days when swashbuckling pirates ruled the high seas.

Don Bluth, an ex-Disney animator better known for his full-length animated feature films like *The Land Before Time* and *All Dogs Go To Heaven*, was literally years ahead of the competition when he introduced the world's first laserdisc video arcade game, *Dragon's Lair*, in the early 1980s. Unfortunately, despite an encouraging initial success



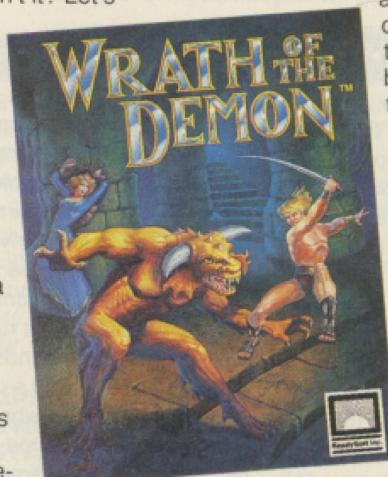
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and a follow-up, *Space Ace*, punters soon tired of the repetitive nature of the gameplay found in these titles. Over the past few years, Readysoft and Entertainment International have enjoyed considerable success with the Amiga conversions of these Sullivan Bluth games. Criticism about the lack of depth still remains, it's just that the animated visuals found in these titles are truly of movie-quality. It's very easy to be lured by flashy graphics and crisp sound samples, isn't it? Let's

hope the designers of the forthcoming CDTV games have taken note of our pleas for better gameplay and interactivity. Readysoft has already embarked upon its own Amiga project, *Guy Spy*, using advanced graphics techniques similar to the ones employed in the Amiga adaptions of *Dragon's Lair* and *Space Ace*. An early demo of this secret agent caper was displayed at the recent Consumer Electronics Show in Chicago, so the game should be ready to pre-

view in a couple of months. Meanwhile, Readysoft has developed and released a CDTV version of *Wrath of the Demon*. "We are very positive about the CDTV which is a natural fit for our style of games," indicates Readysoft's David



Foster. The technical credentials for *Wrath of the Demon* can't fail to impress, in fact, the original Amiga version was awarded a CU Screen Star in the January 1991 issue. The game contains over 3Mb of graphics data, 600 screens of action, 1400 frames of animation, more than 100 colours on screen and over 100 monsters, some larger than half the screen. Players go on a quest to rid the kingdom of an evil Demon and his minions, rescue the princess and restore honour to their King. This leads the bold adventurer through caves, swamps, temples and castles before reaching their ultimate challenge, the Demon himself. The CDTV adaption of *Wrath of the Demon* isn't radically different from its floppy disk cousin. Foster indicates

Readysoft will support the CDTV in its future releases and is promising two more titles

before the end of the year.

"Unfortunately, we will not be releasing the Sullivan Bluth games *Dragon's Lair*, *Space Ace* and *Dragon's Lair II: Time Warp* in the near future due to some grey areas in the licensing of these games for laserdisc."

Sullivan Bluth's first two CDTV games are currently scheduled for release later this year. CU AMIGA hopes to bring you a full report on these games in a future issue. In the meantime, why not rent out one of Syd Mead's movies and study his genius at close-sight?

DON'T BE AFRAID!

If you have any questions or suggestions regarding any aspect of the CDTV please get in touch by writing to: CDTV TIMES, CU AMIGA, EMAP Images, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU. Alternatively, you can fax us on 071 490 1094. CU AMIGA regrets we cannot respond to any telephone calls. See you next month...

blast off

What delights will the second generation of CDTV software bring? Rik Haynes explores some of the options...

Our first few months in the happy land of multimedia have been busy ones. Commodore is confident that CDTV is making history on the streets. No surprises here. But there are black clouds waiting to darken our bliss. If you thought consumers were confused about buzz words such as 'edutainment', 'intertainment' and 'neomedialia', just try talking to a few of the software developers who are supposed to be supplying this new age of interactive education and entertainment.

The stumbling block is a simple one. Creating a half-decent multimedia title with oodles of lush visions and noises costs in the region of £200,000 per project. The only way to recoup this

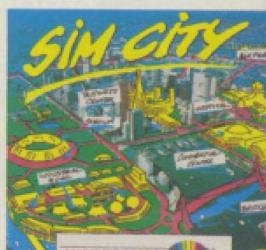
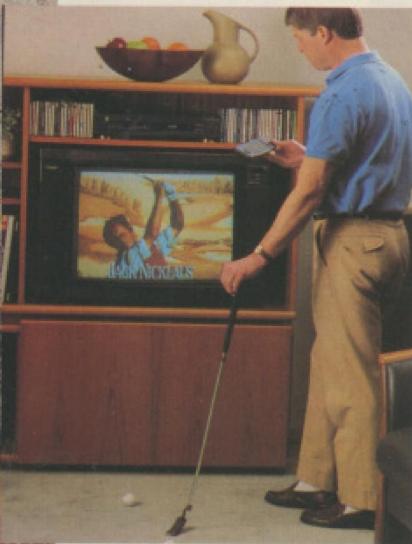
huge investment is by releasing the same project on a variety of platforms. Sounds reasonable, until the dreadful truth dawns on you. CDTV is the only

'media miracle machine' actually available at your local dealer. Thus, many people still aren't willing to commit themselves to costly software development which break the boundaries.

Meanwhile, the companies willing to take a chance are readying the next phase in CDTV seduction. Some of the larger companies and a few mavericks are redefining the way we'll look at software in terms of both content and general aesthetics. What will Santa be leaving in your stocking this Christmas, then?

It may be something of an overused cliché, but it's the software that counts over any fancy box of electronics. The development community is only just beginning to understand multimedia and the first wave of CDTV software reflects this initial bewilderment. These people have learnt from their mistakes first time round and are experimenting with new concepts.

The more general applications such as encyclopaedias will start employing partial screen motion video software technology called CDXL capable of generating 1/3-screen images at about 12 frames





per second. Whereas *Sherlock Holmes, Consulting Detective* (ICOM Simulations) uses Video-mation, a custom digitisation process that allows video to be displayed at 15 frames per second. This murder mystery title based around Sir Arthur Conan Doyle's famous sleuth was produced in the same manner as a short feature film. A script writer was contracted to compose dialogue, 25 actors were cast for 50 speaking parts, more than 70 period costumes were designed and 25 Victorian-era sets built. ICOM programmers then digitised the video and blended them with computer-generated graphics and hand-drawn illustrations. The dialogue audio was also digitised and synchronised with the video scenes. 'With our technology, the player can take on the role in a movie and interact with real people,' claims creative director Ken Tarolla.

In addition to big-profile projects from ICOM Simulations and Psygnosis, there are many enhanced games on the horizon. The emphasis is on user-friendliness and harnessing the better features found on the CDTV - high-quality sound, expansive storage space and a

guarantee of one megabyte of RAM to play with.

Software like *SimCity* (Maxis/Infogrames) is really showing the way. The new version of this award-winning town planning game incorporates a complete set of scenarios from around the world, 25 minutes of music, and supports five European languages. Future CD-ROM games from Maxis will also include Hypertext-style windows filled with facts and trivia. Bet you can't wait for *SimAnt*!

Commodore claims there is a mad rush to get more titles released, but no-one is willing to divulge sensitive facts about the second generation of product. 'Although there's plenty of good stuff under development, we can't talk about

specific titles until the publishers themselves are prepared to announce what they're doing,' confirms a Commodore spokesman.

We'll be taking a close look at the good, bad and ugly sides of the current crop of CDTV software next month. Until then, enjoy yourself and always look both ways when crossing the road.

SINK THIS PUTT! Armchair golfers beware! The CDTV adaption of *Jack Nicklaus' Golf* promises a 'virtual duplicate' of the Muirfield Village Golf Club in North America. Accolade unleashed a group of photographs onto the famous 18-hole course in order to capture over 8,000 digitised images. 'Photographs were taken from all angles,' describes producer Chris Bankston, 'We tried to take into account that the ball can land or roll anywhere. People should actually feel like they're playing golf with Jack Nicklaus.'

WHAT IS IT GOOD FOR? Ouch, the CDTV vs CDi war - subtitled two rival machines in a small market with big potential - is getting very nasty indeed. The current corporate conflict is over Photo CD, a new way to store your camera snapshots on compact disc and make photographic developers heaps of lovely cash. Amongst claims, counterclaims and hurriedly prepared press releases it emerges that Philips, Kodak and Commodore aren't quite sure what sort of equipment you have to be packing if you want to read a Photo CD. Philips Interactive Media Systems has announced your multimedia machine must conform to CD-ROM/XA or CDi standards. And guess what? The current version of CDTV does neither. According to Philips, the only products developed that have Photo CD compatibility just happen to be the Philips CDi players due to be introduced in Japan and the USA later this year. Not so, say the Commodore people. They reckon Kodak needs Photo CD to work on the maximum number of CD-ROM platforms possible and CDTV should obviously be top of the list as this is the only system on sale today. These feuding firms have until October to stop their squabbling and get it sorted. That's when Kodak will finalise the Photo CD standard and start furnishing high-street photo finishers with the necessary hardware to turn your holiday pics into digital data.

SING FOR YOUR SUPPER It had to happen sooner or later. The Japanese singing craze is now available on a selection of Karaoke discs which threaten to make full use of the Compact Disc plus Graphics (CD+G) capabilities of your CDTV. Without

effecting the digital sound quality, these CD+G titles allow the lyrics of a song to be displayed on the screen while the musical accompaniment plays merrily in the background. Are you ready to murder your favourite tune with a unique interpretation? Nat King Cole will probably turn in his grave when you plug the microphone into your hi-fi and start warbling Some Enchanted Evening to your hearts content. This, unfortunately, is just the beginning. Arbiter is planning to release roughly 40 disks costing just under £40 a piece. These discs each hold around 18 tracks. A quick scan of the catalogue produces such gems as Incense & Peppermints, Those Lazy Hazy Crazy Days of Summer and Your Good Girls Gonna Go Bad, along with more mainstream Karaoke hits as Frosty The Snowman, Never Gonna Give You Up, Please Mr Postman, and, of course, Fame!



1 FRAME THAT GAME

Today, in almost every game released, you'll see the results of combining a skilled graphic artist, video camera and a digitiser...

Feeding video footage into computer software has become very fashionable in recent times. The reasons are obvious. For a start, it's incredibly easy to do: single frames or whole chunks of movie action can be grabbed and put inside a game. What's more, crafty designers use digitised images as reference materials, creating ever-more realistic images than before. All this can be achieved in a fraction of the time it would take using traditional methods.

Some firms are taking the idea one step further. For the adventure game, *Heart of China*, Dynamix employed the talents of over eighty actors, make-up artists, professional photographers and costumers rented from movie studios. Once you've thrown in a script writer, soundtrack composer and producer, the term 'New Hollywood' sounds plausible after all.

While the theories of importing video into software are pretty well consistent, the actual techniques can differ. Some developers simply transfer scenes from a film and use them as title screens or animated introduction sequences. Ocean's *Terminator 2* is a good example. The disadvantage is that digitised graphics have a unique 'blocky' look to them, which is why the people at Lucasfilm Games used a paint program to retouch the characters in their forthcoming graphic adventure, *Secret of Monkey Island 2*.

Once the action was 'in the can', artists at Lucasfilm selected the best frames and transferred them to the computer. Every single pixel could be changed by the commercial and proprietary paint and animation software at their disposal. Size, colour, clothes and facial expressions were tweaked to perfection. By the time they'd finished, you hardly notice the images were anything other than 100% computer generated. However, take a closer look as the characters move with fluid, natural motion.

Manufacturers of arcade machines are using video, too. Williams, the coin-op company with a string of early 1980s hits, such as *Defender* and *Robotron 2084*, have bounced back into town with the first arcade game to fully utilise digi-



In the arcade version of Terminator 2, the designers at Williams had unlimited access to a wealth of material, which was then converted

for the hardware first seen and heard in the award-winning *Narc*. The game contains over 100,000 frames of digitised animation. Listen out for Arnold Schwarzenegger saying 'I am the future'. This is one of the phrases cut from the final film.

When writing Prince of Persia for Broderbund, Jordan Mechner filmed his younger brother running and jumping around his New York apartment. He then paused individual frames on his VCR, photographed them and outlined a silhouette with a black marker pen. These photos were then scanned into his computer to form the basis for the swashbuckling hero in this visually-stunning game.



Tengen's Pit-Fighter, the arcade beat'em-up converted by Domark, is perhaps the most blatant implementation of digitised graphics so far. Movements of actors were filmed, graphically digitised and transformed into a series of impressive sprite animations. Every character in the game has about 100 frames of animation.

tised graphics. *Terminator 2* incorporates film footage, authentic location backdrops, digitised images of the cast and sampled speech from Arnie himself. 'We're the pioneers of live action digitised graphics,' remarks programmer George Petro, 'This exciting new technology combined with a lot of kick ass software is the main thing that keeps you coming back for more. We're getting it closer to real life, it's just like playing the movie now.'

State-of-the-art never comes cheap. *T2 - the coin-op* cost over three million dollars to make. It's a good job James Cameron, the director of *Terminator 2* and *Aliens*, is a fan of video games. He gave Williams everything they needed. Hopefully, this will pave the way for co-productions between the movie and games industries in the future.

2 MINDWARE

Now you, too, can produce video-based computer games, just like those from the software giants...

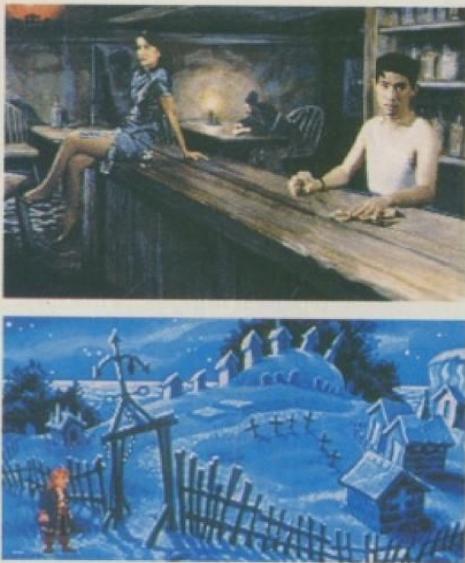
While AMOS is probably the most widespread utility for creating your own programs, not everybody is willing or able to handle the complexities of programming an Amiga. Enter the unimaginatively titled Desktop Video (DTV) from On-Line Entertainment. This particular piece of authoring software has undergone more name changes than we dare mention. However, the small North London firm is using it to publish a steady stream of diverse CDTV software like *Psycho Killer*, *The Hound of the Baskervilles* and *Women*

roll the amiga



in Motion.

On-Line Entertainment describes DTV as a multimedia publishing system which allows designers and artists to build CD based products. If company boss Clement Chambers is to be believed,



programmers are now obsolete. A nice thought for some perhaps, but still a little premature at this stage. Don't expect to have the next *Populous* or *Speedball* in your hands within a week, but anybody with a hint of creative ability can produce a professional product provided the right raw ingredients are available.

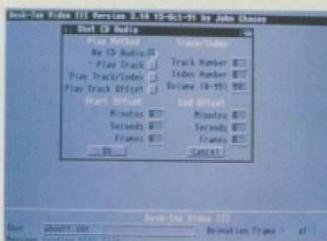
To do a really good job you'll need a wealth of pictures, animations, sounds and music to keep the punter interested — and the quality of this visual and audio material can make or break a project. Of course, such elements never come cheap and at £5000, we're afraid to say, neither does On-Line Entertainment's DIY multimedia studio. On a more positive note, it's extremely easy to use.

'DTV should be seen as a black box in the design process,' reveals Chambers, 'It is a tool like a camera or recording studio'.

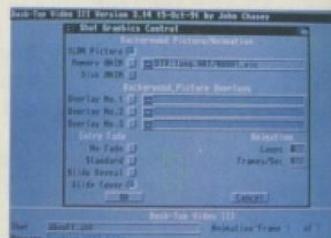
One thing is for sure, On-Line Entertainment is fully committed to the concept of DTV and constantly increases the tricks it can perform. Future enhancements will include support for 24-bit colour and CDXL, Commodore's partial screen motion video software technology capable of generating 1/3-screen images at around 12 frames per second. This should allow far better utilisation of digitised video footage within a typical CDTV release. There's even talk of a special cut-down adaption of DTV for producing ordinary Amiga applications on floppy disk. If strong public demand for such a program becomes clear, it's merely a matter of time. What about another name change, too?

ROLL UP, ROLL UP

If the prospect of Desktop Video sounds promising to you, On-Line Entertainment can be contacted on (081 558 6114). The company is always eager to hear from people who think they've got a few original ideas for products. Never know, you could get a discount!



At the very core of On-Line Entertainment's Desktop Video we have 'shots'. These are the fundamental combinations of images, sound and type of interaction that the user will be given at a distinct time within the product. The designer can incorporate stills, stencils, animations,



audio visual streams, text, music, sound samples and CD audio in any order required.



PSYCHO KILLER 2 A sequel to the Psycho Killer CDTV interactive thriller is currently being 'filmed' during the dark winter nights on location in Southampton. Another unusual game from Fergus McNeil of The Boggit fame, Psycho Killer 2 will sport gorgeous 24-bit graphics and CDXL compatibility (see main text).



TOWN WITH NO NAME Obviously inspired by the hit laserdisc shoot-out *Mad Dog McGee*, this spoof Spaghetti Western graphic adventure is now available on CDTV. Town with No Name is another On-Line Entertainment title put together with Desktop Video. The next one will be a Travel Guide due for publication in late spring.



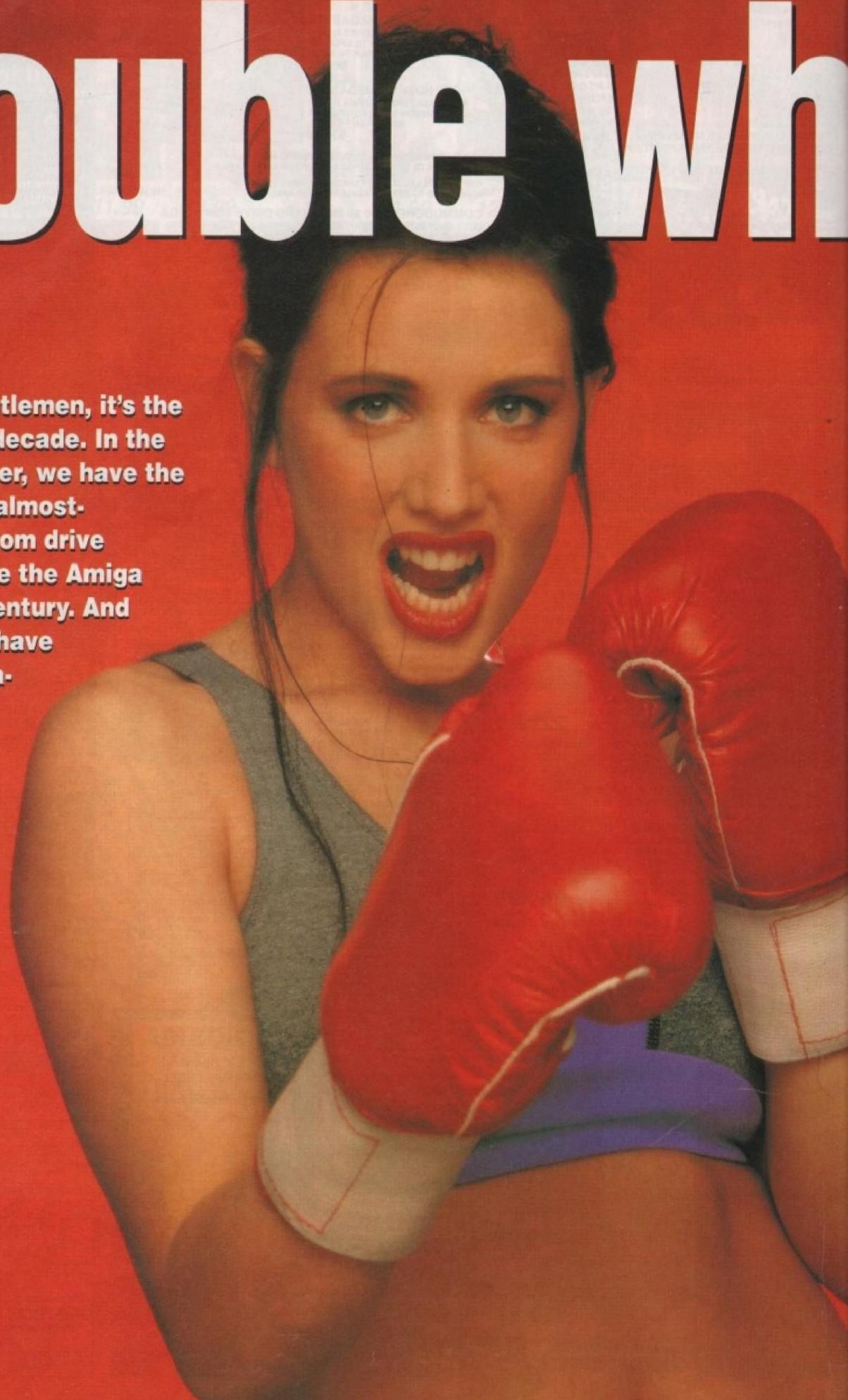
compilation of his epic photo work re-released for the enjoyment of CDTV owners, is packed with moving images of tigers, monkeys, camels, raccoons and more. With this product, you can examine individual frames of animals or export them into a paint package like DeluxePaint IV. Will On-Line Entertainment ever publish Men in Motion?

ANIMALS IN MOTION

Pioneering Victorian photographer Eadweard Muybridge sure took a pile of snapshots. *Animals in Motion*, the second

commodore's double wh

Ladies and Gentlemen, it's the contest of the decade. In the right-hand corner, we have the new A570, the almost-legendary CD-Rom drive destined to take the Amiga into the 21st Century. And on the left, we have the next generation Amiga computer, the A600. Let's have a clean fight and, seconds away...



ammy THE A570

Commodore's CD Rom drive is probably the most hyped Amiga peripheral to be developed in the last two years. Mat Broomfield takes a closer look to discover the facts behind the myths.



CD ROMDERFUL

When the CDTV was released last year, it was hailed as the forerunner of a new generation of home computer products. It's capable of loading computer software from compact disks which can hold over 600 megabytes of data. These disks can also hold ordinary music tracks which can be heard via the CDTV or any household CD player. Furthermore, the unit can handle CDG, a revolutionary format that lets you listen to CDs whilst watching accompanying graphics on your computer monitor.

Since then, sales have not gone as well as Commodore might have hoped, with the unit suffering from speculation about the add-on CD Rom drive (the A570), which could effectively turn any A500 into a CDTV at about half the cost.

Now, at long last, it looks as if the CD Rom drive is on its way, with a release date pencilled in for the latter half of this year. CU Amiga has managed to acquire the latest pre-production machine so that we can bring you the results of some of the first hands-on experience in the world.

LET'S GET PHYSICAL

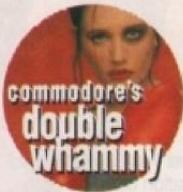
The CD Rom drive comes in a white glossy plastic case about the size and thickness of a decent hard-back book (one by Stephen King, anyway!). Although it looks very slick, it doesn't match the A500 in either colour or texture. CDs are inserted at the front of the drive, via a flap-protected opening which essentially functions like an oversized floppy disk slot, complete with push-button ejection mechanism. Below the disk slot, there's a quarter inch headphone socket, power and CD read/play light, and a dual purpose volume knob and power switch. The right-hand side of the unit is dominated by the interface which plugs into the Amiga's expansion port. At the rear of the A570, there are stereo phono sockets for audio in and out, and the traditional square A500 power socket. This means that you'll now have two 'brick' power supplies to worry about.

Once the drive is plugged into the Amiga, and the power switched on, the A570 takes control of the Amiga's operating system, replacing the traditional insert disk screen with the static CDTV logo.

CDs are placed into a plastic shuttle ready to be played by the unit. This shuttle is actually a flip-top case which protects the delicate CDs, and locates them precisely within the player. You might think that



The prototype shows the 'less is more' approach to the unit's design. A headphone jack and the volume knob are the only controls. However, despite the minimal decoration, once hooked up, the A570 does live up to its promise of turning the Amiga into a CDTV.



commodore's
double
whammy

THE A570

CDs are traditionally very robust, and that's true when it applies to music, where one or even fifty missing bytes is barely audible. However, even a single missing byte can be enough to make an Amiga program unusable, so the data CDs are far more susceptible to damage from scratches or rough treatment.

The drive automatically registers the shuttle when inserted, and boots whatever is on it. However, if you want to use ordinary floppy disks instead of CD software, simply insert a disk in the internal drive of the computer, and it reverts to A500 mode.

Current models of the A570 don't include a through-port, so unless you have a hard drive with one (or a stand alone drive that uses a SCSI connector), you won't be able to connect both drives simultaneously. Commodore have been giving out

conflicting signals about the development of drives with a through-port, at one time claiming that all models would have one, whilst later decrying any knowledge of the likelihood. I think it's safe to assume that even if the first machines don't have through-ports, they will either be fitted as standard to later models, or will be available as an alternative release if the problem with noise levels can be sorted out.

MIX MASTER

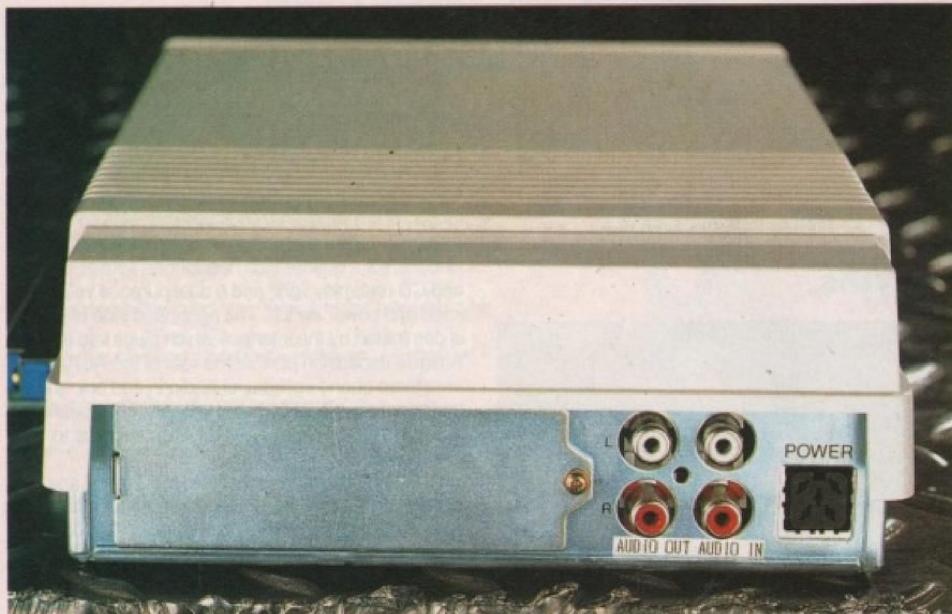
As I mentioned earlier, the A570 is capable of playing normal CD audio tracks – in fact it produces sound quality which is better than that of most high street CD players. Better yet, it can mix CD audio with sound generated by the Amiga. The phono leads from the Amiga are plugged into the audio in sockets at the back of the drive, and a further set of leads then link the drive to your hi-fi or amplifier. Audio and Amiga data can be mixed on a single CD, and audio tracks can be triggered from within a software package.

This brings to life the concept of multi-media, combining graphics with CD quality sound tracks and

similar effects.

One drawback of the CD ROM drive, is the fact that most CDTV titles require a minimum of 1Mb of Chip RAM to work. If you have an A500 Plus, this isn't a problem because they come with 1Mb as standard. However owners of 1.3 machines will have to perform a slight modification to their computers before they will be compatible. 1.2 owners are really out of luck, though, because the A570 is totally incompatible with it. This means that you'll finally have to get that 1.3 or 2.0 upgrade you've been thinking about getting all these years (complete with new Agnus chip)!

For those people with more demanding applications, an additional 2Mb memory card can be added to the drive, although it doesn't seem to be possible to connect both memory and a SCSI device simultaneously. There is a small plate to the rear of the unit, though, and it could be a possibility that this will be where such a port could go. Unfortunately, at the time of writing, we haven't been able to confirm whether this is true. Still, as soon as we know, we'll bring you a further update.



Phono sockets for Audio In and Audio Out are situated adjacent to the power supply socket. Unfortunately, the A570 uses another A500-style power supply which means that Amiga users have two bricks to contend with – presumably saving Commodore from having to design and produce a new one. The blank plate shown here could possibly become a SCSI port at some point, allowing the addition of external hard drives. However, this couldn't be confirmed at the time of going to press.



TARNISHED DREAMS

When Commodore first launched the CDTV, it was widely viewed as the greatest innovation since the Amiga itself, with the entire industry waxing lyrical about the exciting prospects that the machine heralded. Those prospects are still as viable as they ever were, but thanks to Commodore's absurd marketing of the machine, it has fallen far short of everyone's hopes. It was six months before Commodore allowed it to be described as a computer, and they even refused to allow retailers to display it in close proximity of anything computer-related. To make matters worse, the unit was seriously overpriced, and Commodore had targeted totally the wrong audience for its UK advertising campaign, preferring to appeal to the education and Yuppie family sector, as opposed to the existing base of one million loyal Amiga owners.

At the moment, best estimates put the current UK CDTV user base somewhere between ten and fifteen thousand users. Many software publishers won't develop for such a (relatively) low user base, and as a consequence, the machine has very little worthwhile software available for it. The promised extras for the machine (such as the keyboard, extra drive and dedicated monitor), have been late in coming, if at all.

The A570 could be the lifeline the CDTV needs, as surveys have revealed the potential user base to be in the region of 500,000 users.

Fortunately, most CDTV software is compatible with the A570, although there are several titles that apparently don't work.

POSSIBILITIES UNLIMITED

With almost 600Mb on a CD, the A570 opens up the way for large scale software publications which would have been impractical using floppy disks. Games such as *Heart Of China* and *Dragon's Lair*, which required nine and five disks respectively, would be small fry compared to the possibilities offered by a system capable of storing over six hundred disks worth of data on a single CD.

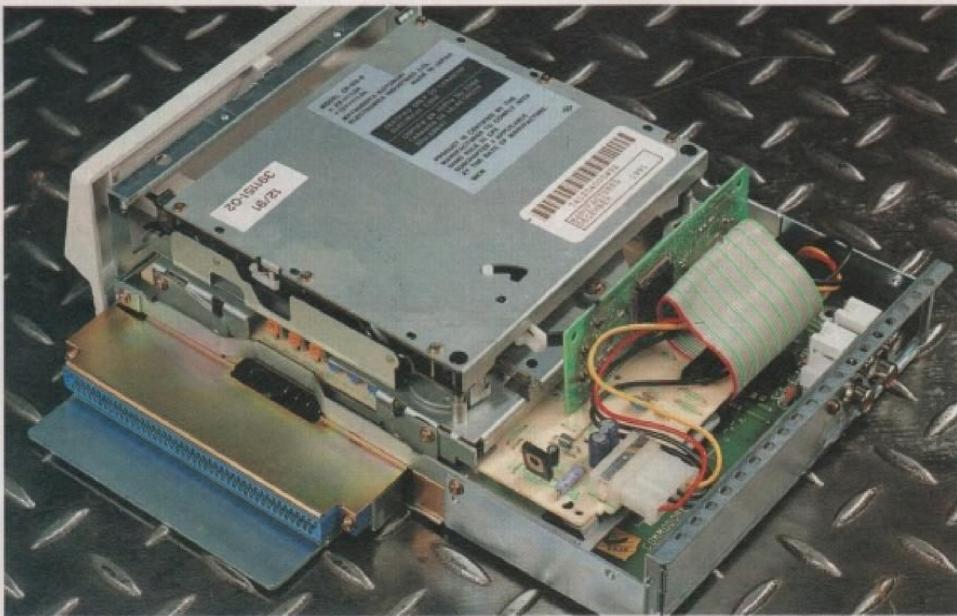
It's not just games that would benefit either; how about a desk-top publishing system that comes on a single disk yet contains over a hundred scalable fonts, and hundreds of structured clip art images. Sound interesting?

When you talk about professional use, another quite important omission between the A570 and the CDTV becomes apparent. The CDTV has a special video slot that lets you connect a Commodore Advanced Video Mode card which offers pseudo 24-bit graphics capabilities. This card opens the way to TV-quality animation, which makes it all the sadder

that the A570 doesn't include this useful slot! You can achieve the same results using the DCTV, but this is a very expensive alternative.

CONCLUSION

The A570 is the answer to many Amiga owners' prayers, offering high capacity storage and faster than floppy disk access times. The current software is quite uninspiring, but as sales of the unit are combined with those of the CDTV, we can hopefully expect to see software developers start to take both machines a bit more seriously. It's a real pity that current machines don't have a through-port, but as mentioned, our version is only a preproduction model so perhaps that omission will be rectified in the version that hits the shelves. Sources at Commodore tell us that the A570 will retail for £299, and that supplies are at this moment on 'a slow boat coming over from America'. Whether that's an accurate picture, only time will tell, but when stocks finally arrive you can put my name at the top of the list for one. It's a neat little unit which lives up to Commodore's promises. >



Surface mount technology makes for compact and reliable design. Everything is arranged neatly, and a metal casing ensures that any DIY repairmen should be deterred - it's certainly neater than the innards of the CDTV unit. Also visible to the rear of the unit is the famed cartridge port, where the addition of extra peripherals, such as scanners and the like, should be possible. Even so, though, its addition doesn't make up for the loss of the edge connector.



FRED FISH COLLECTION

There are precious few serious CDTV titles available at the moment, but one such program stands out from the rest. Mat Broomfield takes a look at Hyper Media Concepts' *Fred Fish Collection*.

SOMETHING FISHY

Nintendo owners have Mario, Sega fans have Sonic and Amigaphiles had the Juggler, but what is there for CDTV owners? Fred Fish of course! If you're wondering what I'm talking about, I'm referring to software titles which are so good, that they justify buying an entire machine just to use them.

THE ULTIMATE COLLECTION

The Fred Fish Public Domain library is arguably the greatest single collection of free and shareware programs available anywhere in the world. To date it consists of over 3000 programs spread across more than 600 floppy disks, unless of course, you own a CDTV or Commodore's new CD ROM drive, the A570. For those lucky few, the entire collection is available on a single mind-blowing compact disk.

As the programs were originally designed to run on the Amiga, most of them will require you to either own the optional CDTV keyboard or network the CDTV to an ordinary Amiga. To this end, the disk contains a copy of the excellent *Parnet* program which lets you link up an Amiga and then treats the CDTV as an extra terminal to and from which information can be exchanged.

Also on the disk is the *Fish Aquarium*, a virtually essential browser program that lets you look through the various Fish titles without having to first load each one.

Because many of the programs on the disk are archived (stored in special compressed format), they will need to be unarchived via a normal Amiga. This is yet another example which leads me to think that although the Fred Fish CD is CDTV compatible, it was actually designed with the A570 in mind, as it simply plugs into the unit, and acts much like a high capacity read-only hard drive.

One annoying fact is the way that Hypermedia have seen fit to remove all of the various program's icons, forcing you to create your own, or launch everything from CLI.

CONCLUSION

When you consider that it would cost between 500 and 1000 pounds to buy this collection on floppy disks, it really is cheaper to buy a CDTV and the CD. Although the Fish collection is largely utility based, there are also many games on the disk, as well as music and graphics demos. Whatever your fancy, this disk is like buying a lifetime's software collection in a single hit!



A 570



It was here, then it wasn't and now, at long last, it is. But what exactly is the A570 CD-ROM drive, and is it any good? Nick Veitch accesses the data...

DELIVER UNTO US...

They said it would be here by the summer. They were wrong, but at least they had the decency to hurry things up for an August delivery. Yes, the CD-ROM drive is finally amongst us – but is it any different from the machine we previewed all those months ago?

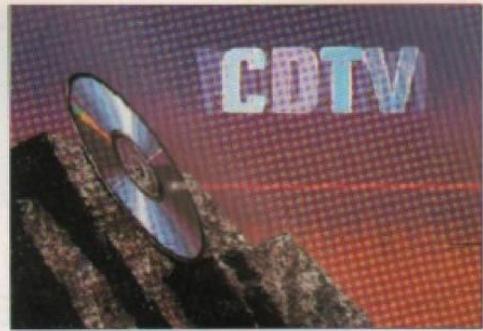
Not really, but a few things have been cleared up. Yes, the port at the back will accept IDE hard drives. The IDE standard is supported on a number of MS-DOS platforms so there is no fear of supply drying up. It should also mean that drive units will be more competitively priced. The power unit is still the old ugly but reliable 'brick' style.

COMPATIBILITY

Hmm... Well, it should be compatible (when working in CDTV mode) with all CDTV software. It should be, but remember that the CDTV doesn't come with a keyboard or a mouse. Remember also that the A570 unit doesn't come with a remote control unit. To get around this the units were designed to have roughly compatible controls. In the same way that holding down the Alt and the right Amiga key on the keyboard is the same as pressing the right mousebutton, the control pad of the CDTV should be emulated by the mouse buttons and the cursor controls. This burden of compliance lies with the developers, though. In practice, the Operating System sees to most of this compatibility but there can still be some problems. Whilst using *Sim City*, for example, neither the keyboard nor the mouse seems a suitable replacement. Perhaps Commodore could have included a controller and infra-red transceiver with the pack.

AND THERE'S MORE

The advantage of having an A570 over a standard CDTV is that you will be able to access CD ROMs in Amiga mode as well as in CDTV mode. The CD-ROM drive recognises all CDs which conform to the ISO9660 standard, and these include many of



CD UPDATE

There are now a growing number of CDTV titles around, with more appearing at regular intervals. The latest releases reflect the amount of data capable of being stored on this format. *Trivial Pursuit* from Domark (reviewed on page 70) comes on two disks and comprises over two thousand questions, including picture and music questions which are not possible within the framework of the original boardgame. Few developers have yet exploited the CDXL format, which allows quarter frame animation from CD. So few in fact that Commodore have started producing at least one such title themselves – an American Football simulator complete with animated anchorman, half-time interviews and coaching tips. We previewed *CDTV Sports Football* in our news pages last month, and we hope to bring you a full review very soon – as this sort of TV-style simulation and humorous presentation is ideally suited to the CD medium...

the disks full of clip-art, fonts, or raw data intended for use with IBM PC or Macintosh CD-ROM systems. Obviously, you will not be able to execute any of the files you may find on these disks, but you can use the data files. Graphics can be easily converted over using *Art Department*, and even Adobe fonts can be converted using the utilities now bundled with *Pagestream* and *Professional Page*. In effect, the CD-ROM now becomes like an extra large Read-Only floppy. Discs are loaded into a special caddy (which resembles an optical cartridge) and just slot in the front. This isn't quite as convenient as the slide-in-and-go CDI players, but it makes more sense, reducing the possibility of errors and damage to your precious CDs. If there is a break or a scratch on a music CD, chances are you might not even notice it, but when it comes to binary data even the slightest error could screw up the whole application.

You can still use the A570 as a normal CD player, too. When booting up in CDTV mode simply insert the disc and the familiar CDTV control panel will pop up. Play the tracks normally, select



A 570



a sequence or choose the random play option. The CD side of things will also handle CD+MIDI and CD+G formats. CD+MIDI contains extra data which is read as the music is playing. This MIDI data can be used to control a keyboard attached to the Amiga via the serial port.

IMAGE HANDLING

CD+G is a format which includes slowscan or still frame graphics alongside the music data. These images can be handled quite adequately by the Amiga display and, in fact, the A570 is one of the very few systems (along with the CDTV) which are capable of displaying these graphics. In Amiga mode you can still use the A570 as a CD player, via a small utility supplied. Although Commodore claim that the CDTV will be able to use Kodak PhotoCD discs (where you have your films developed onto CD instead of normal prints), there is no evidence at this time that the A570 will be able to handle this format. The same goes for the Electronic Book format discs, which are roughly similar to the old style CD singles and are much smaller, handling only around 200Mb of data.

CONCLUSION

As a CD player, I think I'd still rather have a stand-alone unit. Your Amiga is going to look a bit conspicuous in a big stack of matt black and chrome amps and tape decks. Still, it's nice to have the option. The A570 is actually a CD-ROM drive and a multimedia engine in one, so you have

The Competition

The CDTV is not the only home multimedia system available. Philips have a rival system, the CD-I unit (CD Interactive) which you may have seen advertised in various magazines and on huge 16-sheet hoardings. The CD-I standard is set so other consumer electronics manufacturers will soon join in, giving a choice of units from JVC, Sony and the like. Initially, these units will be fairly expensive because they are not based around a computer, but around dedicated hardware. The software likely to be produced promises in time to incorporate full-frame animation at a decent speed, but at the moment this would require some additional hardware like the MPEG compression chip, bumping up the price even more. Although launched after the CDTV, titles are being released for CD-I at a faster rate and more developers are sure to join the fray on the side of CD-I because it will probably have a much greater marketing budget. Also edging into the arena is the Sony Data Discman and lookalikes. These units work on a smaller disc (the 3" ones which used to be used for audio CD singles) and are designed to be used as travelling notebooks. Time Out magazine has already released a number of City guides in the Electronic Book format. Although the discs have only about 200Mb capacity this is easily enough for games, reference works and language translators

to look at its cost relative to those systems. The A570 is considerably more flexible than the CDTV, and in some ways a much more viable unit. This is only the first step on the path to make all Amigas CD-compatible. Admittedly, you can get SCSI CD drives for your Amiga already but they can't operate in CDTV mode. This is the perfect – and relatively affordable – entry to the CD market. Simply because it links to your Amiga makes it a worthwhile buy, as poor CDTV owners have been alienated by several controller-based compatibility problems, and although the mouse doesn't exactly perform perfectly, it is a slightly more fluid control system. In addition, as the machine is aimed at the 'lower end' of the market, it means that more larger software companies will start to produce CDs for it – at last. The only query about such an excellent unit is why did it take so long and why did Commodore produce it after the stand-alone CDTV instead of before? ☺



A 570

- ... at a glance
- CDTV compatible • Requires 1Mb chip memory
- Over 600MB storage • Disable switch • Audio through Amiga sound • Works as a CD player • Volume control

Commodore Business Machines (UK) Ltd., The Switchback, Gardiner Road, Maidenhead, Berkshire SL6 7XA. Or give them a call on 0628 770088

COMMODORE £399

Better late than never – and a neat entry to the world of CD...

EASE OF USE	88%
VALUE FOR MONEY	70%
EFFECTIVENESS	94%
FLEXIBILITY	93%
INNOVATION	90%

OVERALL **87%**

Slotting neatly into the side of an A500, the A570 looks perfect when next to your machine. In addition, installation and loading is extremely easy to effect, ensuring that any unnecessary hassle is kept to a bare minimum.

Serious CDTV



It was launched at the British Association of Film and Television Arts, by presenters from BBC's *Tomorrow's World*. It has been hailed as the most important development in home education ever; the most exciting new computer product of 1991; and an answer to questions yet to be asked. The CDTV is an example of the newest idea in information technology – interactive multimedia. This dreadful Americanism is a typical example of overstated hype to describe a simple idea – a TV you can control. Or, put another way, a talking book with animation and sound.

Is CDTV an executive's toy or a serious plaything? Mark Smiddy explores a range of some of the specialist software available

necessarily guarantee success.

Take Sony's ill-fated Betamax system for instance. Although costing slightly more than JVC's Video Home System, it produced far better picture quality. Look at the label on videos at any high street TV specialist – chances are they all say VHS. Betamax is long since dead; beaten not by poor marketing or market reaction, but by release date

CDTV has a much wider range of titles available and more are coming all the time. Three were released during the compilation of this article and many more are planned for release during early 1992. Time (and Commodore's best-selling C64) has also shown that it's software – not hardware – which sells computers. The major part of this feature therefore, concentrates on the wealth of information that has already appeared on just a few compact disks; with 650Mb to play with, the average disc can hold the entire works of Shakespeare or the entire King James Bible several times over.

HUTCHINSON ENCYCLOPEDIA

The *Hutchinson Encyclopedia* is supplied with the CDTV and as you might expect from a freebie, it leaves more than a little to be desired in some areas. The conventional edition of Hutchinson's Encyclopedia has been in print for something like 40 years, but the 1991 CD edition is a brand new entity in its own right. It contains over 25,000 articles and 2000 illustrations, plus maps from Independent Television News and sound recordings from the archives of Aunty Beeb. From those specifications alone, you may gather what multimedia is about.

The introduction is promising – a guided tour through the programme's many features. Not surprisingly, this highlights its better ones and includes a shot of John McEnroe backed with an actual recording of McEnroe's famous argument with the referee over a suspect call. "That ball was on the line. It was clearly in," wails McEnroe. "The Linesman

JARGON BUSTING • JARGON BUSTING

CDTV – Commodore Dynamic Total Vision

Disc – As opposed to the variant spelling 'disk' (which refers to floppies) disc is used here to refer to a compact disc.

HAM – Hold and modify. A screen mode used on the Amiga and CDTV where up to 4096 colours can be displayed simultaneously. Although HAM pictures can be a little grainy, they are usually the best way to display still photographs and slides.

Hamster – A mouse sans tail; or put another way a remote control mouse.

Multimedia – An inexact term (American hype) used to refer to any system capable of providing information in several different flavours: graphics, sound, animation, text and so on. The actual media (where information is stored) is usually a single compact disc.

Programme – A CD presentation is a programme – like a television programme. The variant spelling program is used to refer to computer software.

Trackball – An upside down mouse – with more ball.

The CDTV is not unique in this area. One of the largest consumer electronics companies in the world, Philips, has its own hi-tech – high-spec system. Produced in association with Sony, CD-I apparently beats the CDTV into a cocked hat. But as history has shown, being the best does not

– when it arrived, VHS was already well established in rental stores, and therefore, in homes. Time will tell if the same fate awaits CD-I, because like Betamax before, it is also more expensive than its competitor and has arrived late; perhaps missing the boat.

Another similarity exists in that



"Is Commodore Dynamic Total Vision all hype or true hypermedia? Let's find out..."

Mark Smiddy



SHOPPING LIST

Hutchinson's Encyclopedia Free
Produced by: Attica
Unit 2, Kings Meadow,
Ferry Hinksey Road
Oxford OX2 0DP

CHECK OUT HUTCHINSON ENCYCLOPEDIA

Graphics	● ● ○ ○ ○
Mostly monochrome and in short supply.	
Sound	● ● ○ ○ ○
What there is is good, but it's also thin on the ground.	
Ease of Use	● ● ● ○ ○
Finding what you want can be a real chore.	
Performance	● ● ○ ○ ○
Aggravatingly slow at times.	
Price Value	● ● ● ● ●
At least it's free and the update doesn't cost too much.	
Overall rating	● ● ● ● ○
Not one I'd pay for – but a nice freebie.	

called a fault because the ball was on his side of the court..." replies the referee, obviously tired of McEnroe's temperamental bickering. The emotion present in this entry (under Lawn Tennis) and McEnroe's exuberance in the monochrome shot clearly justify the advantage of multimedia over conventional methods.

The main screen splits into four sections: Title Find; Index; Maps and Pictures. These work as follows:

- Title Find: This is a list of the entries by title (as the name suggests) and is really just a glorified contents list. The alphabet appears at the bottom of the screen and the search of contents can be narrowed down by entering a sequence of letters. It works like the "high score" table present in many older arcade games - you move the cursor to each letter and press a button. As each letter is entered, the revised list of items appears. Once you find the entry you are interested in, you simply select it from the list. At the bottom of each screen, two icons determine if sound and graphics are available for that entry; although sounds (if available) are always played with the pictures.

- Index: Just that - an index of all the major words held in the



Doctor Wellman - the complete onscreen health system. It's full of advice for all the family. The title screen shows how the subjects are divided for quick and easy reference. Hypochondriacs will love this one...

- Maps: The map section is quite limited in the first release of *Hutchinson's Encyclopedia* and not all countries - in particular those in the eastern bloc - are covered. Although most of Europe, Asia, North and South America are covered, very few cities and states are picked out. The producers freely admit this in the introduction to the disc, but I feel no information would be better than the limited amount supplied. In its

Sources at Commodore have leaked information which suggests the new version is considerably better, and while the information is basically the same, the package has been improved beyond recognition. I will await the arrival of the new edition with eager anticipation. In conclusion, I would like to say that the poor quality of this title would not stop me buying a CDTV, neither would it convince me to buy one.

DOCTOR WELLMAN

Digita's health system, *Dr Wellman* should be a triumph both for the company and Commodore. The programme took two and a half man-years to develop, and gives a complete guide to getting fit, staying healthy and what to do when things go wrong. What makes it special is the addition of graphics, animation, music and all the other things that standard health encyclopedias lack; all due to the CDTV approach. There is a multitude of graphics, illustrations and eight hours of narration! The system divides into many subsections which are described

briefly here; to cover them in detail would take up most of this issue.

- General Healthy Living: Everybody knows how to keep fit - but can we keep up with it? This part of the system shows what the best exercises are and how to get the best from them - no matter how young or old the individual. This section also encompasses some delicate areas like substance abuse - with particular attention being paid to solvents - "glue" and even lighter

fluid sniffing. Covered in the same category are the uses and abuses of legal drugs like alcohol, nicotine and caffeine, plus the harder drugs from cannabis to amphetamines (speed), LSD, magic mushrooms, barbituates, cocaine, crack, ecstasy etc. This follows (though not directly) into looking after your heart and a philosophy section on non-medical ways of controlling anxiety.

- Self-examination: A complete guide to checking the body for suspect lumps (in mammary tissues) and odd little moles (anywhere). Plus a section on the medical examination and what goes on at the doctor's surgery.

- Adult health: Cancer - prevention and cure, B.O., the menopause etc.

- Sex: Is included (although parents will be pleased to hear this, like other delicate subjects is user-password protected). Covered here are topics like the male and female orgasm, sexually transmitted diseases, sex in later life. Plus specific - difficult to understand - problems like low libido and impotence.

- Later life: A guide to diet and exercise for the elderly - with a health assessment built-in.

- Dental health: caring for your toothy-pegs, coping with dental anxiety, dental repair, fillings, extractions, orthodontics and endodontics.

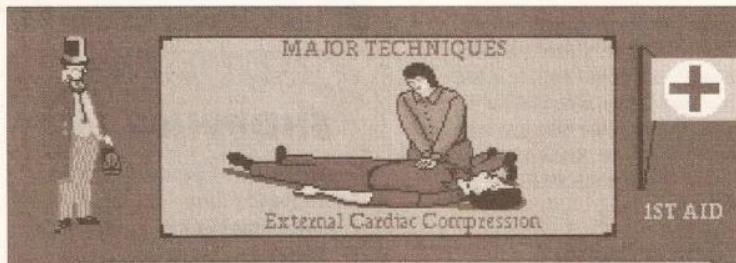
- First Aid: Information on how to recognise and cope with a patient suffering with angina, diabetes, heart attack etc. Including how to take a pulse, perform cardiac massage, and clear blocked airways.

"There's a panic button with direct access to the emergency section."

- Poisoning: A full section on how to get rid of that unwanted relative and become heir to a fortune. Topics covered here include effects and remedies (where applicable) for Thorn Apple, Belladonna, scorpion stings and snake bites. "In India alone 10,000 people die each year from snake bites!" comments a Digita spokesman.

- Travelling Abroad: From here you can select your destination - one of 257 available. This is followed by a short animated sequence and some appropriate music, while the next

continued on page 18



It is important to practise this technique under trained supervision. There is no substitute for practical knowledge & experience. Although it is sometimes acceptable to assist breathing with mouth to mouth resuscitation, the heart's action is easily upset.

Part of the First Aid section of *Doctor Wellman*, giving you all the gen on how to perform cardiac massage. There is also a panic button for emergency situations, but is anyone really so calm that they'd reach for the CDTV?

encyclopedia. Selections are made using the same awkward system as employed by the contents.

- Pictures: From this selection, the encyclopedia randomly pulls out pictures from its library of 200 images.

This gives children (in particular) access to a vast library of pictures they can search at leisure, find something of interest and then read the accompanying story at the push of a button.

present state the map section is more confusing than it is useful.

The major problem with *Hutchinson's* is its lack of interactivity - something which CDTV is really all about. There is no doubt it is a very important reference work, but I was left feeling cheated - as if I would have been better off just buying the "real" thing. However, it should be remembered that this is a freebie and you can buy the next edition for just 20 per cent of the retail price.

continued from page 16

section loads. It gives information on – climate: rainfall, humidity, average daily temperature; emergency and medical rules; whether or not to drink the water; required clothing; vaccination both mandatory and specific for AIDS (vaccination?), cholera, tetanus and malaria. The latter for instance, has extra details like the fact that malaria vaccinations do not give complete protection. Finally there's a check-list to make sure you've got everything.

● Obstetrics: From planning a family, through conception, foetal development in the uterus... through the first year's development and

may look a little high compared to conventional titles – but when you consider you can pay over £100 for a good word processor, Dr Wellman is an absolute bargain.

TIME TABLE OF HISTORY – SCIENCE & INNOVATION

Did you know the idea for domesticating dogs was first thought of over 9,000 years ago – in Yorkshire no less; or that Aspirin was first marketed by the Bayer company in Germany at the end of the 19th century 40 years after its discovery; or that everyone in the world today is a direct descendant of a woman living in Africa some 200,000 years ago; or that the first vending machine dispensed holy water? Just four facts from the amazing

- Power of ten – power zoom from a house on earth to the sun
- Quote – quotes from famous people

Interestingly enough, you can define more than one keyword in any search criteria. The keyword "Solar" brings up a list of 85 items, from inventions to men on the moon. Adding another keyword, say astronomy, narrows the list to just 25 more salient items. An even more powerful search facility can be accessed directly from any descriptive text – more of that shortly.

Time Line: Eight main screens make up the time line – each with its own graphics and up to eight narrated scenes describing major events from the period. Thankfully, the *Time Table* concentrates on facts more than hype.

To wit, sensitive stories such as the destruction of Hiroshima by the Americans and dissolution of the Soviet Union are handled in detached news-like fashion. Each page is coupled to a graph of economic cycles demonstrating how the major events affected the world of the period.

OK, that allows for something like 60-odd scenes – hardly what you'd call using the media to its full. But the time line divides into even smaller segments. The bottom of the screen lists six time periods which are covered by that part of the time line. For example the early 1990s split from 1900 to 1925 in six jumps. Picking one at random, no less than 184 items are listed from 1908 to 1912. Pick one of these at random, let's say Duralumin.

Discovered in 1909 by German Alfred Wilm, Duralumin is an aluminium alloy formed with small amounts of magnesium and copper. The new alloy is tough and incredibly light,

leading to its use in the Zeppelin airship.

Still not convinced? At the right side of the screen, two more icons are activated for this entry. The first brings up a world map and picks up the exact geographic location where the discovery was made. The second is more interesting for aspiring chemists or the incurably curious (like me); a link to the periodic table of elements. The appropriate elements relevant to this discovery are highlighted. Let's take Magnesium – this is what the *Time Table* has to say, "atomic number 10; atomic weight 24.312; melting point 651 degrees centigrade; a light, silver-white chemically active metal. Burns with an intense white light, releasing great heat."

Staying with the periodic table for a moment, it's worth mentioning the top row of controls. These automatically highlight the elements

1ST AID



GENERAL SKILLS



MEDICAL EMERGENCIES



MAJOR TECHNIQUES



TOUR OF PRACTICAL 1ST AID

The First Aid title screen of *Doctor Wellman* – as you can see from the variety of sub-headings, it contains a mine of information. Whether you're browsing or need to know something the screens enable you to access information easily

required vaccinations such as polio, growth charts, child health care etc. And not forgetting the mother – topics include mastitis and post natal depression. There's even a section on that most delicate and emotive of issues, child physical and sexual abuse. But why, oh why, is nappy rash referred to as diaper rash?

Finally, and perhaps most importantly, there's a panic button which gives direct access to the emergency section of the program. It would be interesting to speculate however, in a panic situation, how many people would reach for the CDTV player...

Nevertheless, *Dr Wellman* is probably the single most important development for the CDTV and deserves to do well. It's a quality product with excellent narration and masses of important and fascinating information suitable for the family and hypochondriacs alike. The price



collection (over 6,200 of them) compiled by Xiphias for the *Time Table of History*.

From the main screen, you can view information in two main ways: the Time Line or by keyword search. An automatic help system is also available, demonstrating how the *Time Table* is used.

Keyword Search: There are 157 entries in keyword search – the main index if you like – from advertising to zoology. Listed at the end of these are several entries on effects – the special buttons which lead to other entries in the *Time Table*, viz:

- Elemental – entries concerning elements and the periodic table
- Frequency – the electromagnetic spectrum (radio, light etc)
- Geological – the geological timeline (pre-history and so on)
- Picture – stories with digitised pictures or graphics



SHOPPING LIST

Dr Wellman £54.99

Produced by Digita Multimedia Ltd

Black Horse House, Exmouth

Devon EX8 1JL

0395 270273

CHECKOUT DR WELLMAN

Graphics



A bit cartoon-like for my taste but clear.

Sound



Excellent and lots of it – narrator 'sounds' like a doctor.

Ease of use



A multitude of illustrated menus and quick search index – simple.

Performance



Very good. Rarely leaves you hanging around.

Price Value



Good value for lots of information.

Overall rating



A mine of useful information – just like talking directly to your GP. Graphics do not do it justice.



SHOPPING LIST

Time Table of History –

Science and Innovation..... £39.95

Produced by: Xiphias

Helms Hall

8758 Venice Boulevard

Los Angeles CA 90034

USA

CHECKOUT TIME TABLE

Ease of Use



Superb, almost drives itself.

Graphics



Excellent digitised images and artwork.

Sound



Crisp and clear, but a limited number of sounds, speeches etc.

Performance



Fast keyword search and almost seamless speech.

Value



Superb – a must for everyone's collection.

Overall rating



Overall it's great value for money. It's packed full of facts, is easy to use and has excellent graphics.

that are:

- Solid, liquid or gas at room temperature
- Metal or non metal
- Noble (inert) gasses
- Transition elements
- Radioactive

The current selection(s) remain highlighted while you check the facts about the related elements and their properties. Most people know mercury is liquid at room temperature, but how many can tell you its chemical symbol is Hg?

Returning to duralumin, you may remember it was used in the Zeppelin. What do you know about Zeppelins? Most people are familiar with the Hindenburg incident in 1937 when the Hydrogen filled airship exploded at Lakehurst, New Jersey. The entire vessel with 53 officers, crew and 60 passengers was consumed by fire in just four seconds. But did you know the 236-metre long, Graf Zeppelin was flown for 13,000 hours without incident? Or the original 420 foot Zepplin flew its maiden flight in 1900 on under-powered Daimler engines, and was grounded after just three flights?

I located all that information, along with eight other items charting the history of the Zeppelin, in seconds simply by selecting the word "Zeppelin" in the story on duralumin. This is typical of a *Time Table* tour – and it shows how one item leads to another, and another and another... Any tour you take will go along different routes – because you follow the paths that interest you. Most of the descriptions are short – a few short screens at most – but this is a bonus, because the casual reader never gets bored with the linearity of it all.

The problem with this title is also a credit to its design and the CDTV multimedia engine; once you start experimenting with it you just don't want to stop! This can lead to arguments between the *Coronation Street* addicts (for instance) and the rest of the family who are bent on increasing their knowledge. In itself, the *Time Table of History* defines just what can be done with CDTV and confirms its status as a true multimedia engine; a talking book suitable for all. This title is an essential purchase for your CDTV or A690 – just leave yourself plenty of time to browse.

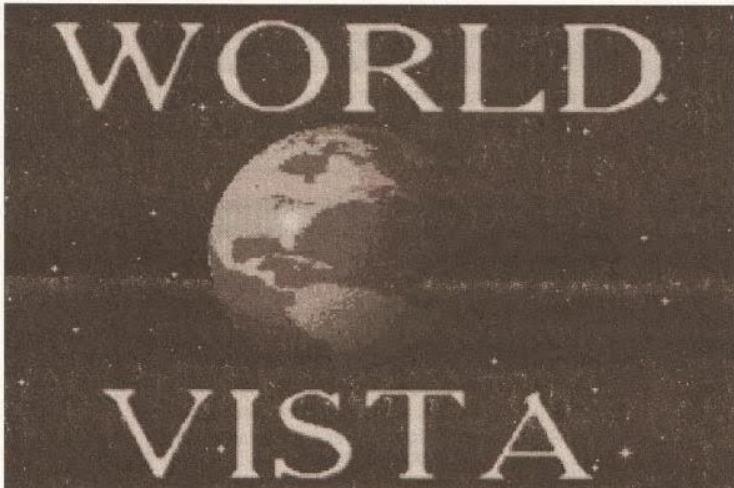
WORLD VISTA

Personally, I have always found Geography a rather dry subject, so it was with dubious anticipation that I greeted *World Vista* – an interactive atlas. On the face of things, *World Vista* promises a lot: full colour maps from over 200 countries, samples of

the language, pictures from many places of interest and a lot more. Here are some of the facilities it offers:

- Speech: Would you know how to greet a Japanese or ask where the toilet is in Hebrew? These are the sort of questions *World Vista* can answer. Many languages are covered, but just over 20 identical phrases are given for each one. These range from "Yes" and "No" to

atlas of the world should choose to include a city map of Liverpool in its barrage of information – but *World Vista* does. In fact, only two UK cities are included in this title, London being the other (and with all due respect to the scousers) it seems odd the compilers omitted Edinburgh. Worse still, this so-called Liverpool city map actually covers the area as far off as Wigan and Warrington. Each of the detail maps are actually low-resolution digitised from a series



World Vista is an interactive atlas with information on speech, music, geography and facts relating to over 200 countries. The disc brings faraway lands to your own living room...

"My name is...". This last is interesting, because the narrator gives their name as part of the description: so you might end up saying to a German, "My name is Egon Schmidt Mark Smiddy." Sounds daft, I know – but is your German/Hebrew/Japanese up to deciding which part of the phrase is part of the language?

● Images: The occasional browser will be fascinated by this section of the work. Hundreds of images digitised in high-resolution colour from the Photri Inc. library provide hours-worth of occasional browsing. For me, this is without doubt the best part of *World Vista* – being able to see places I'll probably never get a chance to visit.

● Music: In accordance with the best traditions of multimedia – *World Vista* proves it is possible to get an atlas to sing to you. Most countries are accompanied by a snippet of traditional folk singing. (You know, the one where the Englishman gets up, sticks a finger in one ear and wails out of tune to get people to buy more beer.) Each snippet has a short description telling who or what the song typifies about a country's culture. Like the speech though, the music is sampled and suffers from high-frequency hiss.

● Maps: It seems amazing that an

of relief maps copyright Rand McNally & Co from 1980 which probably means a lot are out of date. Each one covers about four screens-worth of information which can be scrolled at will. The trackball would seem to be the ideal tool for this, but in fact it tends to make matters worse.

● Facts: There are a lot of them! From the average life expectancy of males and females to a country's exports and gross national product. This section is the best organised because it allows you to cross reference countries with similar statistics or details. For instance, a woman in the UK can expect to live to 77 on average – the same as a woman in New Zealand, Belgium or Austria. Perhaps she should move to Andorra and get the extra four years women enjoy on average there.

World Vista is an early example of CDTV software though that should not be taken as an excuse. True, it contains a mass of information as you should expect from a CD title, but some of that information has been compiled in a rather devil-may-care fashion. For instance, since when has the UK's highest peak been called "Nevis, Ben"? Some may argue this is a more realistic way to index such facts, but there is no excuse for this appearing in the main text. The speech samples (played

using Amiga audio I suspect) and maps are poor but the still graphics are quite respectable. This atlas on CD, while not a brilliant piece of interactive multimedia (mine had a nasty habit of crashing) is a very interesting resource for students of geography and is certainly worth a look – but get a good demonstration before parting with some cash.

GUINNESS DISC OF RECORDS

Guinness is Irish and its famous *Book of Records* is most certainly a great achievement in itself. Strange to reflect that the superlative CDTV version of the book is produced in the UK yet narrated by Americans. You could be forgiven for thinking the *Guinness Disc of Records* is therefore an all-American thing. Not so; it contains the entire contents of the 1991 *Guinness Book of Records* complete with pictures, facts and fascinating narrated tours. Most notably, it was the only title to recognise the Joy/Mouse error and gave instructions to correct it. This button on the remote handset affects how the CDTV responds to remote control and confuses a lot of titles. Also, it was the only title with a screen blinder. Two little touches which illustrate that a lot of thought has gone into the programming of

continued on page 21



SHOPPING LIST

World Vista £54.99
Produced by:
Applied Optical Media Corp
18 Great Valley Parkway,
Malvern, PA 19355

CHECKOUT WORLD VISTA

Graphics	● ● ● ○ ○
Images are beautiful, digitised maps are poor.	
Sound	● ● ● ○ ○
Plenty of samples but that's what they sound like too.	
Ease of Use	● ● ● ○ ○
OK with the controller, useless with a trackball.	
Performance	● ● ● ● ○
A lot of disc access even for simple operations.	
Value	● ● ● ● ○
Truly a massive amount of information – but pricey.	
Overall rating	● ● ● ○ ○
<i>A nice idea but it could have been much better.</i>	

continued from page 19

this title.

But this disc is all about records: For instance, did you know the largest scorpions in the world measure seven inches long, yet the smallest measures only half an inch? Or that the Cray 2 is capable of 250 million floating point operations per second? Or the largest recorded meteorite weighs an estimated 65 tons? Or that Dave Gauder pulled Concorde 40 feet with his teeth. Or even that a snail was revived after being stored in a museum display case for four years? If that sort of information was all this disc was about it would be useful – but there's more. The tour and picture chapters.

● Pictures: In this section, records are arranged by pictures. For example, the strongest animal is (apparently) a Rhinoceros beetle which is capable of supporting 850 times its own weight! Typically all the pictures are digitised in glorious HAM from photographs (although a few are cartoon and composite illustrations). At any time, you can move from the picture to some descriptive text and back again, or just move through the pictures until you find something curious.

● Tours: This section is without

doubt the best part of the disc when it comes to demonstrating just what the CDTV can do. Each tour (there are six in all) is a complete audio/visual presentation of the relevant subject. Although the tours are automated rather than interactive, they combine all music, graphics, pictures and sound together with a narrated sound-track. And each one is several minutes long: Record Breakers spans over three and a half minutes; and Human World is almost five minutes long.

Fuji film and Japan Airlines got together with the idea to create a multimedia presentation and learning package to help people understand Japan, its language and rich culture.

Culture is very important to the Japanese; even a slight mistake in ritual could give great offence. If you happen to be on a business trip to Japan and a very important official asks you to take tea with him, would you know how to hold the cup? Sounds trivial, but in Japan such things are surrounded in great

well. If I had to find fault (and as a reviewer that's my job) it would be with the graphics. Although most of the drawn pictures are fine, many of the still images look as if they were taken with a Kodak Brownie. Nevertheless, this should not be taken as a major flaw in what amounts to an excellent package.

CONCLUSION

This has merely been a quick tour of some of the better CDTV titles around – but I hope it has given you a taste of what the CDTV or an Amiga and A690 (when it arrives later in the year) are capable of. In compiling this article I have discovered what a feast of information and almost endless possibilities the CDTV offers.

Multimedia? The hype-makers can stick that one up their olfactory tract. In the 12 months or so since it appeared, CDTV has proved talking books and CD programmes are the way forward. Although they are without doubt excellent home machines, I'd like to see them in public libraries and schools because they allow anyone access to the information they require quickly and far more easily than ploughing through volumes of information; as the titles covered here prove, I have seen the future of education: its name is Commodore Dynamic Total Vision. **AS**



Japan World – everything you've ever wanted to know about the Japanese and their culture. It's an interesting idea, although perhaps a little limited in use. There's even a test section to find out how good a student you are

Anyone wanting a real demonstration of CDTV should take a look at this section; it's a real treat.

For the insatiably curious, the disc is indexed by subject too. Unlike a classic index, the subjects are listed by record type: fastest, best, worst, etc. In some circumstances this leads to another sub-index to narrow down the search. It's a little tricky to use at first, but quite logical once you get used to it.

The *Guinness Disc of Records* may not be everyone's cup of tea since it doesn't really fit into any convenient pigeon-hole. I suppose it is best regarded as an educational title: although it only covers the best, fastest, slowest, biggest etc. it provides a fascinating and entertaining insight into fields as diverse as human achievement and the mysteries of space and time. It is also a fantastic taster of what can be achieved with the CDTV and is a credit to its producers; and for that reason alone, it deserves a place in everyone's CD collection.

JAPAN WORLD

The *Japan World* project has been on the go for at least 12 months and started life when a major Japanese manufacturer set up business in Derbyshire. The local council, chief educationalists and others including

mystique and the correct use of protocol is essential at all times. As you move around the programme, your guide pops up from time-to-time with snatches of digitised speech and spot animations. Many photos can be accessed upon demand too.

The programme also contains some amazing historical facts too. For instance, the Kofun period (300 to 700 AD) takes its name from the word Kofun or Tomb because many large tombs were constructed during that time. Japan can also claim the largest tomb in the world. Located near Osaka and measuring 470 metres long and 4km around its perimeter, it is the reputed resting place of the Emperor Nintoku.

A major part of *Japan World* is its ability to test the viewer's knowledge and understanding of the subject. Various tests are employed, usually following a multiple choice system – all involve and enhance learning and better understanding of the language and culture. In school this may be of limited use, but in higher education and as resource material it is invaluable. The section on the written language includes spoken samples of each "letter" in the Hiragana and animated examples of how each should be formed. Wonderful stuff.

The *Japan World* programme is not for everyone – it was designed for a purpose and it does its job very

SHOPPING LIST

Guinness Disc of Records £34.99
Produced by: New Media
12 Oval Road
London NW1 7DH

CHECKOUT GUINNESS DISC OF RECORDS

Graphics ● ● ● ● ○
Excellent quality images and lots of them.

Sound ● ● ● ○ ○
Superb music, narration and effects but limited to tours.

Ease of Use ● ● ● ○ ○
Scroll and page arrows could be simpler.

Performance ● ● ● ○ ○
A little slow compared to others.

Price Value ● ● ● ● ○
Limited interest but great stuff nevertheless.

Overall rating ● ● ● ○ ○
Don't be put off by the score – just take a look.

SHOPPING LIST

Japan World £49.99
Manufactured by:
Global Learning Systems
Lonsdale House
Lodge Lane
Derby
Derbyshire DE1 3HB

CHECKOUT JAPAN WORLD

Graphics ● ● ● ● ○
Animations are excellent – digitised images not so hot.

Sound ● ● ● ○ ○
Limited – but what there is is acceptable.

Ease of Use ● ● ● ○ ○
Not immediately easy – logical once mastered.

Performance ● ● ● ○ ○
No slouch, but it could have been faster.

Price Value ● ● ● ● ○
Expensive – but par for product with limited appeal.

Overall rating ● ● ● ● ○
Well worth it if only for the animations.



With Commodore's new A570 CD-ROM drive due in May, Andy Storer looks at the hardware options and spins some of the latest releases...

By now, many readers will be wondering whether buying an A570 CD-ROM drive is a viable addition to their Amiga system. But, given the investment involved, you may also wish to consider some other possible alternative CD systems.

Expected to pitch in at just under £300, the A570 certainly looks good value for money compared to CD drives for the PC-compatible market where Sanyo and Philips are introducing similar specified drives at the same price. But the key to sound purchasing involves more than just the price of the hardware in question. And more than the price of the software if it comes to that. What prospective buyers should bear in mind is continuing software availability. No point in buying a white elephant, is there?

So can we expect to see a flood of non-games CDTV titles? A look through Commodore's most current list of CDTV applications shows the following breakdown of titles by category:

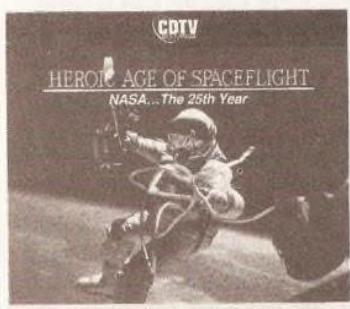
● Arts & Leisure	13
● Education	25
● Entertainment	38
● Music	8
● Reference	15
● Total	99 titles

So, we can safely say that approximately 60% of CDTV disks can be deemed to be of 'serious'

interest. Whether this ratio remains the same is open to question. But are CDTV titles the only disks you can run on a A570?

OTHER WORLDS

There are now well over a thousand CD-ROM titles available for the burgeoning PC CD market and within



Troika's innovative NASA - the first Amiga CD-ROM to offer moving video

certain constraints it will be possible to run them on the new drive. There are three determining factors:

- The disk must be mastered in either the High Sierra or ISO-9660 standard formats. Fortunately most PC disks are formatted to the latter.
- The disk must contain data your Amiga can read – that's ASCII for text and TIFF, GIF or EPS for graphics. Of course, many Amiga image packages, such as *Art Department Professional*, and PD utilities offer handling of other graphics formats.
- The data on the disk must be freely accessible and not dependent on custom retrieval software or compression algorithms.

These golden rules aside, it's still best, if possible, to try before you buy – compatibility has always been the bugbear of computing.

Another option is to run a PC

Amiga though so all these options have yet to be thoroughly tested. Rest assured though, in *Amiga Shopper* we'll be bringing you the results of definitive testing just as soon as it's completed (and we manage to get hold of an A570!).

CD-ROMS SET TO SPIN

New Horizons Pro-Write CD-ROM is scheduled for release in Spring. The single disk contains version 3.2 of this leading word processor plus *Flow 3.0*, *Design Works 1.0* and *Profonts 1*.

No price is set as yet but along with Texan company, The Station, New Horizon is to offer the disk, along with CDTV unit, 1084s monitor, printer, external floppy drive, modem, mouse and keyboard for the all-in price of \$1995 (approx. £1140). Dubbed The Odyssey, the



The new A570, Commodore's CD-ROM add-on for the Amiga, expected to sell for £300. Even without a PC emulator it should be able to run PC CD titles

emulator board like KCS's, find some PC CD-ROM driver software and run the PC files direct. Since PCs recognise an attached CD-ROM drive as a networked logical device and not a DOS device this should be possible. We know of no-one who has had a chance to test this on an A570 yet though.

SCSI PATHS

However, if you own a PC, or plan to at some future date, or simply manage to come across a good deal, there's another solution to building a vast collection of CD-ROM titles without even considering an A570 drive. Buy a PC drive and hook it up to your Amiga!

The key here is that the device in question must be a SCSI drive and you must have a SCSI hard disk interface. Apart from the linking SCSI cable, you'll also need some CD-ROM driver software. Canadian Prototype Replicas on 0101 519 884 4412 offers its CDROM-FS to do just this. For \$50 you get driver software which will work with hard disk controllers for the A590, A2091, and GVP series II and CD drives from Sony, Hitachi, Pioneer and NEC.

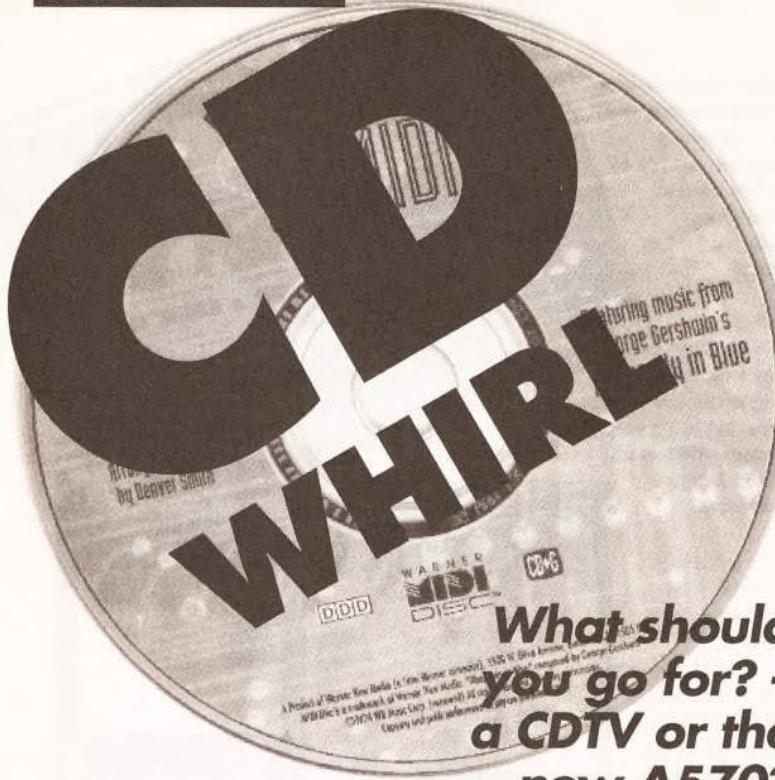
It's still early days for CD on the

bundle is being advertised as an 'all-in-one personal workstation'.

NEW CD-ROM RELEASES

Easily the most exciting CDTV release of the year so far, Troika Multimedia's *NASA...the 25th Year*, is the first interactive motion picture available on any CD-ROM platform. Using Commodore's new CDXL format, *NASA* is a 50 minute overview of the early decades of space flight and can be viewed as a movie with the user able to jump directly to an index of a dozen different subjects supplemented by icon-driven text and still graphics.

The digital motion picture, replete with stereo sound, is the most innovative feature of the disk though. The CDXL format produces a quarter screen, 10 frames a second window in the middle of your TV or monitor at surprisingly good resolution. You can watch movies of early aeronautic research, and excerpts from the Apollo, Voyager and Viking missions along with Space Shuttle sequences. The disk is compatible with the A570 drive but will require at least 1Mb of Chip RAM to run the new CDXL format. All this for only \$24.95. Troika is on 0101 703 841 5160. We'll be running a full review next issue. **AS**



What should you go for? - a CDTV or the new A570?

Andy Storer look at the options plus all that's new on Amiga CD-ROM this month

At last month's European Computer Trade Show held in London, Commodore unveiled three new peripherals for CDTV. A 96-key QWERTY keyboard, a two-button mouse and a 1Mb 3.5" disk drive, all finished in black, will shortly be available for CDTV owners looking to use their machine as a regular Amiga.

As it happens, the keyboard and drive have been around for some time now – priced at around £50 and £100 respectively; only the infra-red mouse – at another £50 – is hot off the production lines. Thus, if you've bought a CDTV for £500 you can now turn it into an Amiga for another £200!

So how does this compare to the equivalent of buying one of the new A570 CD-ROM drives? Although Commodore was hoping to bring the drive in at around £200 it now looks as though it'll cost £269. Add this to the price of an A500 Plus – £399 – and you're looking at £670 or so – just a teeny bit cheaper. What you get is more room for expansion and, of course, Workbench 2. What you don't get is an infra-red set-up that sits among the hi-fi.

FULL MOTION VIDEO

One or two readers have written in this month asking if and when Commodore intends to bring 'full video' to its CD machines. This

stems from an article in March's New Scientist suggesting that in the US, Philips' rival CD-I system will be offering 'full length feature films' on a 12cm compact disk by next spring.

This is unlikely to be the case for a very good reason. For a good two years now, the Motion Pictures Experts Group (MPEG) has been meeting to agree on an image compression standard for digital video and is still some way off reaching a decision. The group, consisting of various international academic and leading corporate R&D chappies, is trying to set a standard – similar to the JPEG accord dealing with still photographic images – which will mean manufacturers have a common base for developing the chip sets for digital video machines.

Even at a conservative estimate, it will take at least another eighteen months for prototypes to emerge which feature MPEG standard full motion video. You can bet then, that Commodore will release a CDTV 2 featuring FMV, once agreement has been reached.

Although non-MPEG FMV does already exist – notably using Intel's Digital Video interactive (DVI) chips, the compression/decompression rates required for displaying full motion, full screen video are so heavy duty that they're beyond consumer price levels.

Consider the problems involved. A typical frame of broadcast TV takes

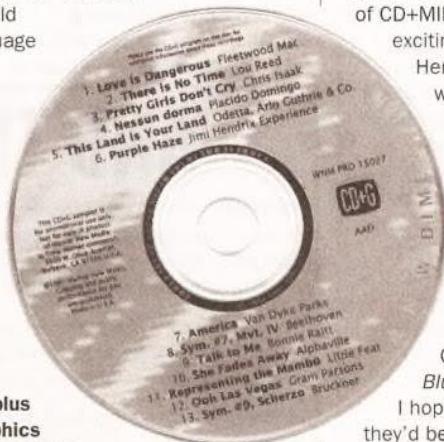
up around 500K. And there are 25 of these making up a second's worth of full-motion. So you need to find a way of shifting 12.5Mb of code to screen memory every second. The answer of course is compression, but then the decompression has to take place in real time too!

So as a result, third party Commodore developers are homing in on quarter screen motion video. Companies like Optronica on 0455 558282 are offering CDTV mastering facilities whereby moving video of any gauge, from home to broadcast, can be overlaid onto full HAM backdrops and interleaved with lip synched audio. Optronica will be placing a floppy disk in the public domain shortly to show off its capabilities.

AMIGA CD SOUND

But it's actually in the sound department that some of the most innovative Amiga CD titles are emerging. Microdeal on 0726 68020 has released its *Voice Master* and *Asterix* French package which comprises a microphone and interface for CDTV which enables you to play back your own voice through your hi-fi as you attempt to copy the intonations of the Asterix characters.

There are over 60 minutes of spoken French from 30 different Gaulists with over 400 interactive cartoon drawings, complete English translation and over 1,500 vocabulary items. Two disks are available for beginners and advanced speakers at £34.99 apiece. And great fun they are too – much more fun than the old language lab.



CD plus Graphics and MIDI data come to the Amiga courtesy of Warner New Media

But if you can't be bothered with French and you just fancy a good 'ole singalong then check out JB Marketing on 0530 61215. It has over 40 CDTV Karaoke disks on its books, each with 18 tracks for £39.99 a throw. There's everything from *Some Enchanted Evening* to *Like A Virgin* on offer but the accompanying graphics are a bit primitive.

Slightly more sophisticated in the graphics department, but not by a long chalk, are the range of CD+G disks from Warner New Media on 0101 955 9999. The 'G' stands for graphics – or what passes for graphics in 8-bit format – and this accompanies a mass of mainly classical titles selling for \$19.99. Beethoven's in there, as is Mahler, Mozart, Prokofiev et al, and the displays can either show biographical or historical information about the piece you're listening to in glorious stereo. There are also disks from Hendrix, Fleetwood Mac, Little Feat and Lou Reed



Just one of the 40 or so Karaoke disks available

for you to make a complete embarrassment of yourself on CDTV

available too but the modern stuff does tend to come with pretty low-res screen designs. Pity really. But Warner's other offering with its range of CD+MIDI is an altogether more exciting proposition.

Here you've got audio tracks with their MIDI equivalents so you can hook up your CDTV or A570 to your keyboard and see what, among other things, a piano solo sounds like as a sax. The first in an indefinite series is a disk containing selections from Gershwin's *Rhapsody in Blue* which sells for \$39.99.

I hope these disks take off as they'd be great in a teaching environment, and let's face it, fun to have at home if you're lucky enough to have a MIDI set-up and a CD drive.

CD Whirl

As the A570 is delayed yet again, Andy Storer wonders how much longer we have to wait for Amiga CD to become a reality...

Among the paraphernalia swamping Commodore's CDTV stand at our show last month, was a brochure outlining its multimedia product range. These are various flavours of A2000 and 3000 machines customised for developing multimedia titles. No pricing details as yet but some specifications raised a few eyebrows. The A2000 CDTV Development; with switchable processor speed up to 25MHz, 5Mb of RAM, a 550Mb internal hard disk, and optional DCTV and genlock enabling 4 million colour graphics to be overlaid over full screen 50 frames a second motion video. Or the similarly specified A3000 Unix machine - this time with an optional 24/32-bit colour palette.

These weren't at the show, but the results of their labours were running on A570s hooked up to A500+.

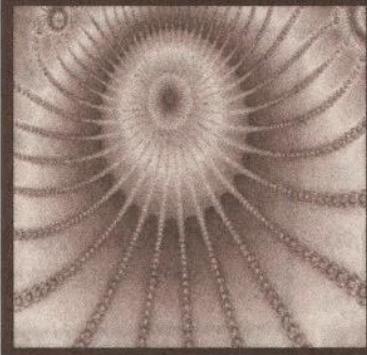
POETRY IN MOTION

Once again, Something Wonderful Is Happening on your Amiga and this time it's motion video. Commodore was showing off work in development by US-based Createc, which included 10 second clips of 15 frames a second video running in quarter screen windows. What was surprising was both the quality of the images - which have to be pulled off the CD-ROM at only 150K a second - and the fact that the talking heads speaking to camera looked like their words were in sync with their lips. More and more CD titles will feature lip sync in this way and one already being readied for a summer release is *Sherlock Holmes: Consulting Detective* - an Icom Simulations game handled over here by Mindscape. You're probably wondering why I'm bothering to

FRACTUALITY

One of the more interesting CDTV titles up and running at the Amiga Shopper show was *Fractal Universe* by Almathera Systems. Besides providing users with information on the history of fractals, their differing forms and the maths used to create them, there's also a whole bunch of fractal generators for users to play around with 'til their art's content. *Fractal Universe* costs £29.95 and is available on 081 683 6418.

All of the images shown on this page are examples of the amazing results easily achieved using the fractal generators.



mention a game in *Shopper* - the point being that it features loads of motion video clips of real actors. Perhaps more revealing though is the fact that the title was developed on PCs and ported over to CDTV - a migration that can only bode well for the future of Amiga CD-ROM.

ELEMENTARY EVOLUTION

The PC has done a lot of catching up since the early days of 4.77MHz dinosaurs with crummy CGA graphics. With the new Multimedia (MPC) standard being touted by Microsoft, developers are looking at a market with an already established CD base. The *Sherlock Holmes* CD is a good example of the way the software's going. While I'm still not convinced of the quality of the on-screen video - it looks like single frame digitised shots linked together, rather than the kind of quality we've come to expect from even lowly VHS, it's about all we're going to get before add-on compression chips arrive for the CDTV and A570. These are already here but won't be affordable for another year or so. But that's not stopping people developing in the meantime and honing their multimedia skills. When the price of the chips - most likely

those manufactured by C-Cube - comes down to consumer levels they'll just slot into the back of your CD-ROM drive and hey presto! - real multimedia will be here. Or something approaching it.

Meanwhile Commodore is still struggling to bring titles to the market fast enough. It reckons it sold 17,000 CDTVs in the UK in the first year - a figure it proclaims beats the number of Amigas sold in the first twelve months of its UK shelf-life. In the blur of computing over the last seven years I can just about remember the early days of the Amiga and can faintly recollect the virtual absence of any 16-bit games available in 1985/86. It wasn't until 1988 when things began to pick up - when titles began to emerge which showed off exactly what the Amiga could do. And I guess it's the same with Amiga CD now. It's one of those chicken and egg situations - you need the software out there to sell the hardware but the software needs the hardware out there to make development worthwhile.

WHERE ARE THE TITLES?

So you end up where 'early adopters' buy a CDTV and find there's hardly anything they can run on it. Actually there's a 100 or so titles available but try and find any in the high street. Commodore aims to have CDTV titles available in the shops that currently sell audio compact disks, computer and video stores, hardware retailers etc - even bookshops. But at present all it can do is ask that you hassle your computer shop manager to get some copies in. Which he's hardly likely to do if demand is small. So what does Commodore need to do? Get a CD drive out on the streets fast! **AS**

WHITHER THE A570?

A major disappointment at the show was that there were actually no A570s on sale. The drive has been delayed yet again. Commodore claims it'll be another month - I reckon autumn at the earliest. Even now the price is not clear. While £269 was the intended price it may now rise to £329. Of course bundled discounts will be available through mail order, but it seems that sales of the A570 are crucial to the success of CDTV in the general market place. For it'll be games that lead the way and in the run up to Christmas there'll be a whole load of new releases on the shelves. And it's only once A570 units begin to sell to existing Amiga owners that more interesting productivity titles, as opposed to reference works, will begin to emerge. The sort of thing I'm talking about is the kind of titles which are already out for the PC - DTP applications, font libraries, clip photography, music software and samples, paint packages with clip art, that sort of useful stuff. Who wants a bunch of obscure US encyclopaedias and reference works? We just want to get busy and the quicker the drive's out the better.

Which is all very well and makes sense as long as there's an A570 in the pipeline. Latest news is that there might not be! Or rather, there is a drive but it won't be called the A570 anymore, it'll sell for £399 and have seriously significant enhancements. What these might be is anyone's guess. At present Commodore is staying schtumm! I'm writing this right on deadline so you'll have to wait until next month for the real picture. Sorry about that... but stay tuned.

Multimedia '92, held at Wembley 2 in mid-June was one of the best exhibitions I've ever visited and over the past five years I must have been to them all. I have to admit some of them have involved nothing more than grabbing a quick train to London, snatching every press release I could find and reading them up on the way home but this show had me gawking at stuff for a good eight hours. Over 70 exhibitors were showing off their wares and while most of these were PC-based, there were a few Amiga CDTV set-ups away from the main Commodore stand.

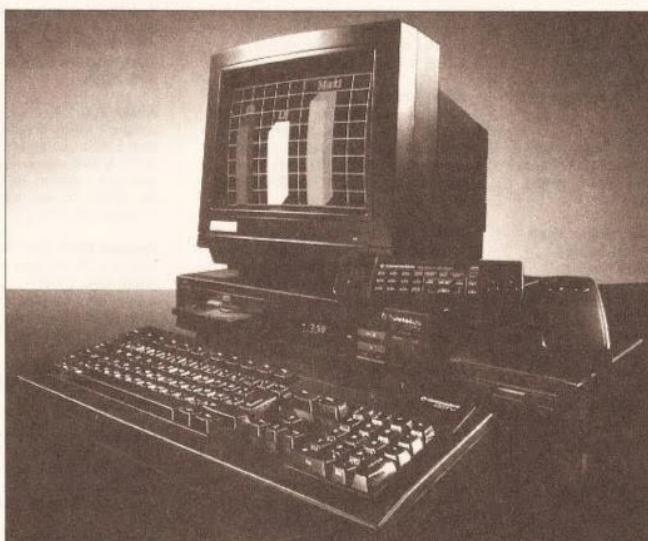
Now multimedia, whatever you might think of the term, is pretty fascinating stuff, so much so that most purveyors of its hardware seem to spend most of their time figuring how to get it to work faster rather than concluding what they actually want to use it for. Loads of applications come tumbling out of the ether of course – desktop TV, video e-mail, interactive training, point of sale, even virtual reality. And there's loads of whizzo add-on cards, touch screens, hi-res monitors, laser disk systems and video cameras all waiting to be hooked up together.

BE A DEVELOPER

But as I said, the applications arena is wide open because the technology is still in its infancy. It's almost as though multimedia is at the same stage as computers were, say, ten years or so ago – before someone had the bright idea that you could actually use them to write a letter to

CDTV INTERPLAY

Leading CDTV systems engineers, Optronica has announced an August launch for its *Interplay* authoring system. Billed as 'a multimedia authoring environment for non-technical producers... who require the production of professional



The Amiga CDTV as an Enhanced Multimedia Computer with a QWERTY keyboard, disk drive and infra-red mouse

applications without the normal excessive learning curve and development costs', *Interplay* uses a desktop publishing style front-end to make it relatively easy for would-be CDTV authors to build applications by laying out multimedia productions as series of pages containing media clips. The system comes with a low overhead runtime player and a motion video playback simulator. It

CD WHIRL

Andy Storer visits Multimedia '92 and comes away with news of the latest CDTV authoring systems

a touch pricey at, ahem, £2500, *VideoStream* is targeted at multimedia title developers and requires an Amiga 1500, 2000 or 3000 with 2Mb RAM, hard disk and video deck. All video recorders conforming to Sony's 9-pin serial protocol – covering a range of high-band U-Matic, MII and S-VHS decks – and offering perfect freeze frame and frame advance are supported. With a fully automated front-end, *WYSIWYG* previewing, ARexx compatibility and on-board runtime player, *VideoStream* offers point and click video and audio sampling. Used in conjunction with Optronica's *Interplay* authoring system, motion video files can be incorporated into CDTV titles via a 'video from hard disk' simulator. Video and audio portions can be fine cut via *VideoStream*'s built-in SMPTE timecode generator. **AS**

STILL NO A570

Although there's still no sign of it, Commodore is confidently predicting sales of 100,000 A570 CD-ROM drives before the end of the year. A £399 price point now seems likely since the drive has been upgraded to include RAM expansion and built-in hard disk. But at least Commodore is keeping the ball rolling. It's just announced a new bundle for CDTV – the Enhanced Multimedia Computer, or as it's known in the trade – The Multimedia Pack. This consists of a CDTV, keyboard, mouse and disk drive for £599. CDTV product manager, Gary Lewis, claims the bundle sold 6,700 units in its first two months on sale in Germany. So CDTV has now come full circle – whereas once it was pitched as a machine with no connection whatsoever with computers, it then became the Amiga CDTV and now the EMC. A year sure is a long time in Commodore computing.

someone. So the fact that there were a number of off-the-shelf authoring systems available for the Amiga CDTV is not only encouraging but just goes to show that if you want to reach 1.2 million users in the UK, many of whom will be buying a A570 CD-ROM drive when it arrives, you could do worse than to buy such a system now and do the business with a market just dying for a new product.

will handle sampled audio files, ANIM animations, ILBM pictures in all modes, *VideoStream* motion clips, SMUS music files and multi-font text support. But no price is fixed as yet though. More information from Lee Gibson, Optronica, 0455 558282

SCALA MULTIMEDIA 2.00

What many consider to be the premier multimedia presentation package for the Amiga, *Scala*, has

now been upgraded with advanced sound/graphics synchronization, improved animation loading and more than 25 new visual effects. Commodore claims *Scala* is the top-selling multimedia authoring package on any platform in Europe and has set the standards by which all others follow. With *Scala Multimedia 2.00* available for £395 ex VAT, sound, music, video and graphics can now be timed in seconds and frames while animations can be loaded directly from a disk as they are played thus enabling a 16Mb animation to play back on a 3Mb machine with instant access. Soundtracks can be added to animations without any reduction in the time of playback. Video manipulation techniques have also been enhanced with effects such as flips, flows, rolls and stretches now possible. Up to 112 slides can be viewed simultaneously on-screen using *Scala's Shuffler* with the user able to edit and shuffle the sequence of slides for presentation with the click of a mouse. The package's built-in *Infochannel* module allows *Scala*-based presentations to be distributed to an unlimited number of remote sites via telephone or data broadcast links.

VIDEOSTREAMING

A stereo audio sampler, real time image digitiser and professional video deck controller along with production and editing software for the Amiga and CDTV has also been announced by Optronica. Although it's

THE TOP TEN CD TITLES ON THEIR WAY

- PD SHAREWARE
- HOME OFFICE
- CINEMABILIA
- DISTANT SUNS
- NORTH POLAR EXPEDITION
- NEW YORK CITY
- MEDIALEXICON
- PROWRITE/FLOW/DESIGN WORKS
- MUSICOLOR
- FIDO FAX
- ...more info next month

TEST DRIVE

Now that the CDTV is finally here, John Kennedy uses both it and the recent European CD-ROM Exhibition in London as an excuse to examine the current multimedia phenomena and what it could mean to us all.



"Unlike the audio CD's, CD-ROMs contain more than just music. They can store text, pictures and even moving video images."



"The software houses will love the CDTV - more memory than 500 floppies, no piracy and best of all, they can get away with charging who-knows-what for each program."

Multimedia is a technical-sounding piece of jargon invented to describe the grouping together of text, graphics, sound and animation into one piece of easy to use software. However, unlike most computer games which combines those attributes in a way we've all seen, multimedia has come to mean something in its own right.

Something rather like the interactive 'learn to speak Japanese' system I saw demonstrated at the CD-ROM Exhibition. First you choose the phrase you want to learn, then you sit back and watch as a Nipponese gentleman (or lady if you prefer) pops up on the screen and says something which is subtitled in English as "Can you direct me to the train station?". You can replay the phrase as many times as you like, before checking the Japanese spelling as well.

This is only the start. Multimedia is where computers meet television, like it's never been done before. Forget little animated stick figures, you can now watch real people saying real things with real voices. They can entertain you or educate you. You can have virtually instant access to, and interact with, famous literature, priceless works of art, important moments in history, even vegetarian recipes... there is no limit. (Imagine interactive porn - Ed.) This is multimedia, and it's here right now.

Media Bias

But why the apparent link between multimedia and the emergence of CD-ROMs? Why should they be always used in the same breath? The answer is: money. A good piece of multimedia software will take up a lot of space. Picture it: 250 floppy disks for the graphics, 100 for the text, 150 for the sound. The disk swapping doesn't bear thinking about. What it all means, of course, is that you need a really huge (say, 550Mb) hard disk to run the software. And here is the problem: no one is going to buy a piece of software that comes on a hard disk costing thousands of pounds. Likewise, no one will be interested in buying a program when it's stored on 500 floppy disks and takes two weeks to install.

This is why CD-ROMs are getting all the press they have. For the uninitiated,

CD-ROMs look identical to normal common or garden music compact discs and work in exactly the same way: a laser scans the surface, reading the microscopic 'pits' which have been burned in at time of manufacture. The pits are a form of binary information, just like the data stored magnetically on a floppy disk. Unlike the audio CD's, CD-ROMs contain more than just music. They can store text, pictures and even moving video images. Because the discs cannot be written to by the user, they are 'Read Only Memories', hence the term CD-ROM.

The most interesting characteristic of CD-ROM disks is their price. Even though they can store about 550Mb of data, on a large production run they each cost less than a pound to produce. (The same applies to audio discs by the way, which makes CD albums look not a little overpriced).

This is why Multimedia and CD-ROMs are so well matched. Multimedia needs a large data storage capacity, and CD-ROMs supply it at a budget price. If it were not for one small snag, everything would be perfect.

Full Circle

It's quite ironic how the CD has come full circle. Originally it was 12 inches across, used to store feature films and called a Laser Disc. It never caught on in a big way, but the technology was adapted to the enormously popular 5 inch audio CDs. Next came the adaptation to computer readable CD-ROMs and finally back to full-motion video. It's taken fifteen years to get back where it started.

The snag is speed. Or rather, lack of it. CD-ROMs are only just faster than floppy disks, and much slower than hard disks. This makes the Holy Grail of the multimedia world - full-screen moving video - a trifle tricky to achieve.

A CD-ROM drive can read about 150K of data a second from its disc. This may sound fast until you start doing some sums. For example, a PAL video screen consists of 576 x 768 pixels, with each pixel needing about 24 bits of colour information to look convincing. Each frame needs updating fifty times a second. Clearly, reading the raw information off

the disc will not be fast enough, and so some sort of compression algorithm is called for.

The Big C versus the Rest of the World

This is where Commodore and its CDTV differs from the rest of the industry. Instead of using hardware (such as Intel's DVI system) the CDTV has no inherent support for full-motion video, relying instead on clever software and the impressive (although aging) Amiga chipset. The results so far achieved are commendable - about a third of the screen at an acceptable 'frames per second' rate - but are far from perfect.

Meanwhile, Philips have spent the last five years working on their CD-I (CD Interactive) system, and recently announced that they can potentially fit 72 minutes of VHS quality full-motion video on a disc.

Although the current CD-I software will only play video in 40% of the screen, later (say, from 1993 onwards) Philips want the discs to replace the home VHS player - and, as the discs are much cheaper to manufacture than videocassettes, they will probably succeed. As for the 72 minute barrier, they simply want the manufacturers of the new players to build-in support for playing two discs at a time. A bit obvious really.

The battle between CDTV and the Philips CD-I will be interesting. CD-I is more technically advanced, but is also more expensive and lacks the existing support of the Amiga. It is due to be launched in America in October with fifty titles, by which time the CDTV should have started to amass a substantial following. Will it be a Betamax versus VHS battle all over again? Who knows, but remember that Betamax was more technically advanced than VHS.

Inactive publishing

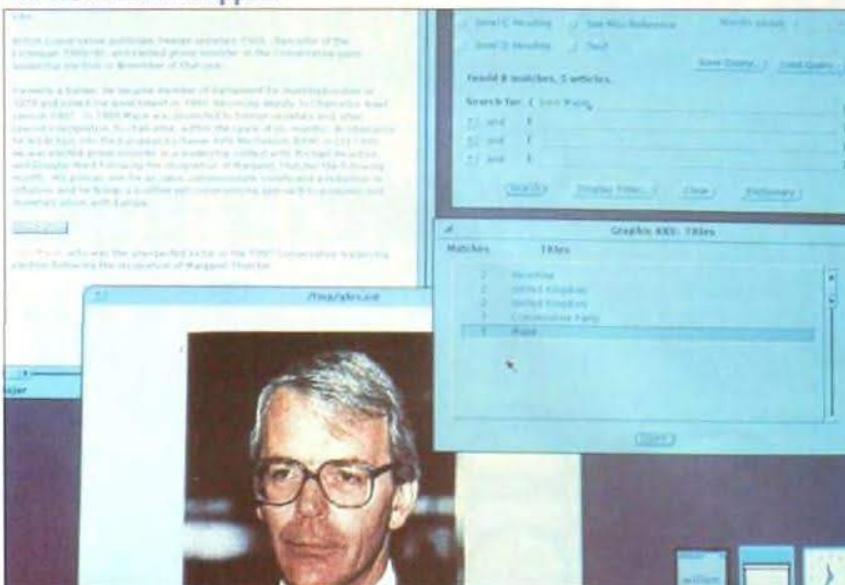
The use of CD-ROMs to store nothing more than feature films is a bit of a waste, because the special thing about multimedia is the 'interactive' quality. It's not just a piece of tape with individual video frames stored on it, it's random access computer memory. The controlling computer can do more than just act as an expensive video recorder.

One of the most impressive pieces of CD-ROM software I've seen on the CDTV is an educational program aimed at 6 to 8 year olds. Narrated by Tom Baker, it creates a cartoon world in which children are encouraged to interact with the characters, to improve their reading and numeracy skills at the same time. This program alone demonstrates the huge potential of the CDTV in the world of education.

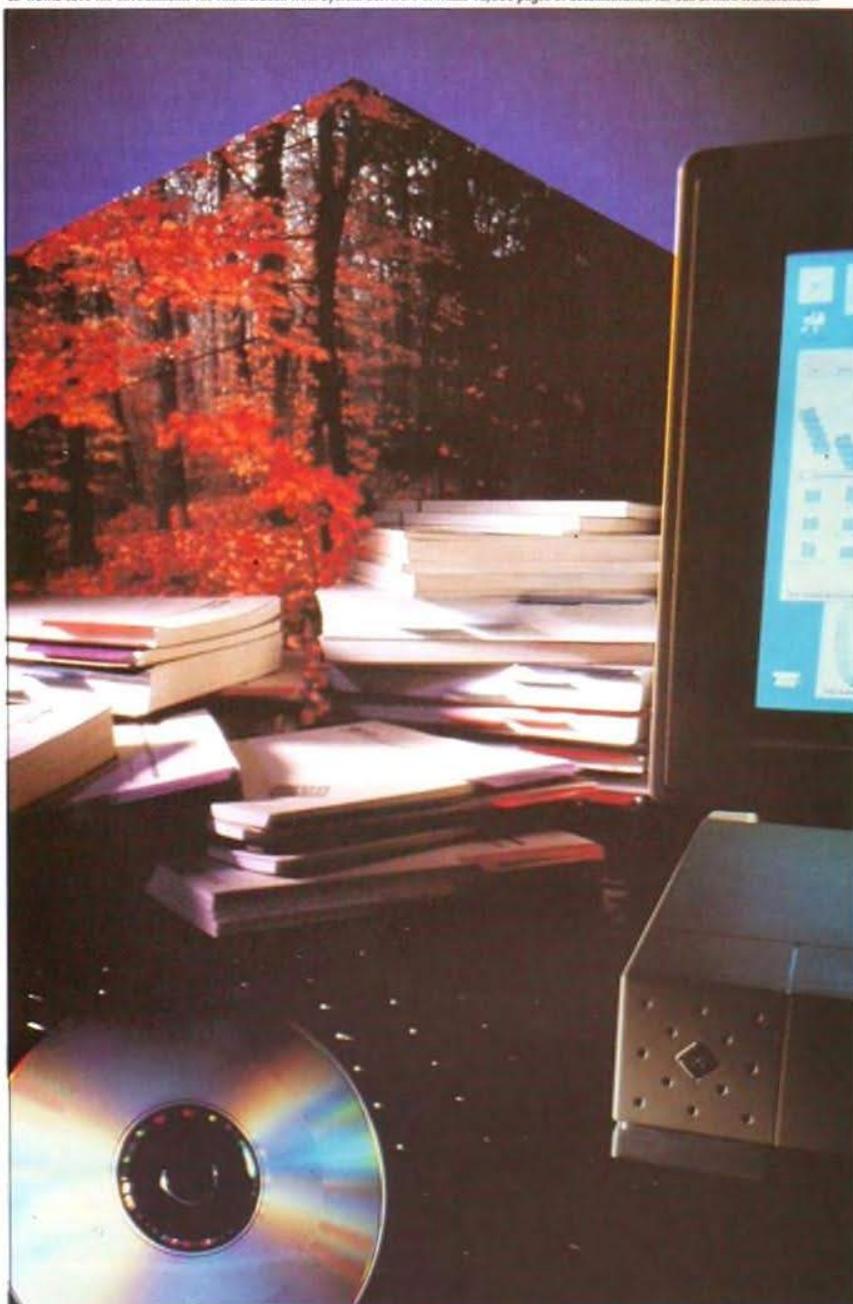
For slightly older users, other discs provide guided tours through important historical events, a computerised atlas and two discs will store the Bible and the complete works of Shakespeare on them, complete with pictures.

As authors become more proficient with the CDTV, there are going to be some

CD-ROM Show Snippets



CD-ROMs save the environment! The Answerbook from System Software contains 16,000 pages of documentation for Sun SPARC workstations.



Even UNIX gets into the multimedia act. This is the Hutchinson Electronic Encyclopedia, the first to use a GUI system called 'Open Look' running under UNIX. A CDTV version will be available.

TEST DRIVE

CONTINUED

CD-ROM

500Mb of digital information. CD-ROMs look identical to music CDs.

CD-ROM Drive

The hardware needed to play the CD-ROM. They look like normal compact disc players, except they are white instead of black and have no flashing LEDs. Most have a headphone output so you listen to Pink Floyd whilst at your computer, or hear any spoken instructions on the disc.

Collective VCR

The video-recorder of the not-so-distant future will be a remarkable unit. A collection of hi-fi separates, it will have cassettes adapted from DATs to record off-air television broadcasts, compact discs for music and pre-recorded films and a computer to control the interactive games and information retrieval stored on CD-ROM. Expect the remote control unit to be the size of a typewriter and needing a power supply!

CDTV

Commodore Dynamic Total Vision. The Big C is the first to launch a multimedia machine, beating even the inventor of CD technology, Philips. Commodore cheated a bit, using a CD-ROM drive coupled to a 1Mb Amiga. The CDTV is black so that it doesn't get confused with a piece of computer hardware.

DAT

Digital Audio Tape. What CDs are to records, so DATs are to music cassettes.

DVI

Digital Video Interactive. A standard from Intel which compresses audio and video information. The algorithms used are implemented in hardware form for the best possible speed.

Full-motion video

A fancy way of saying a decent moving TV picture. Obtaining full-motion video

from a CD-ROM is not easy, but can be done.

How to make your own CDTV disc.

First think of an idea. Then author it, index it, premaster it, simulate it and finally master it. Clarinet Systems of Camberley (0276 600398) will sell you the hardware to do all this for £24,000 and the software for £8,000. Alternatively, you may wish to pay them £340 to produce one disk for you.

Several manufacturers announced CD-ROM drives for PCs, Macs and even Archimedes. Clearly they are aimed at the educational market, which explains why the Amiga has not been included in their list! Units from Hitachi and Cumana start at about £700, but remember that as they use SCSI drives you can (theoretically) daisy chain them to your A590 hard drive.

The CDTV had a high profile at the show, for it is by far the cheapest and easiest way of making use of CD-ROM software. No need for drives and computers, just plug the CDTV into a TV and sit back with the remote control unit. Companies displaying the CDTV and wares included: Clarinet Systems Ltd; Next Technology Corporation Ltd; New Media; Nimbus Information Systems; Stable Software and TopClass Technology Limited. Commodore were there too, although they didn't really need to be with the number of CDTVs on other stands.

Large ROM!

A question which had been nagging me was what did the CDTV display when it was switched on with no CD-ROM in the drive? A white screen with an anaemic hand holding an upside down disc? When no one was looking I reset a demonstration machine and found out: it's a very pretty picture of a CD reflecting a laser beam with the letters 'CDTV' spinning around in the background. So that's why the new Kickstart ROM is so large...

**"If it were
not for
one small
snag,
everything
would be
perfect."**

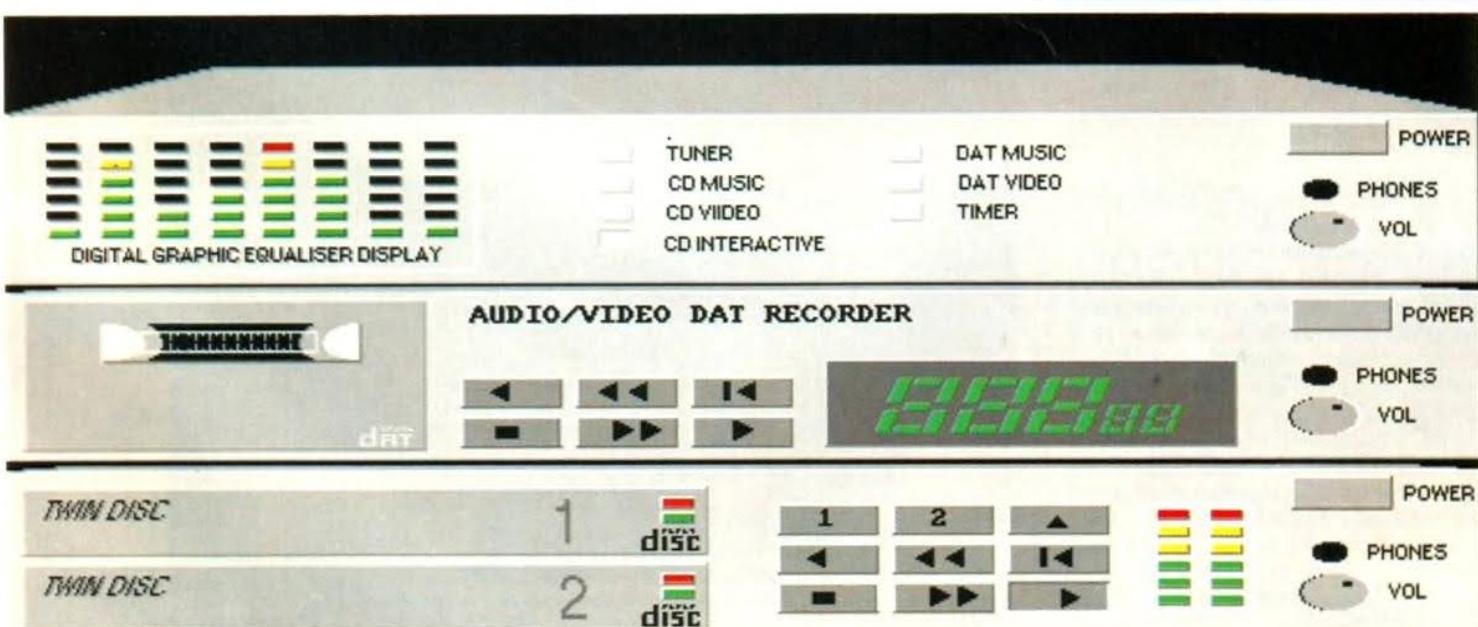
Jargon

CDI

Compact Disc Interactive. The Philips machine for playing multimedia CD's. Due for an American launch in October.

CD-ROM

A 5inch, aluminum disc containing about



IF A SUSPICIOUS-LOOKING character ever sidles up to you in a major electrical retail store and says: "Pssst! Want to see the future of home entertainment?" just say no. You've seen it already. It's an Amiga.

The Amiga CDTV is housed in a smart, black metal case with a lit-up LED display on the front, looking for all the world like a familiar video recorder. Inside it, however, the main component is the circuit board of an Amiga. When CDTV first appeared, Commodore (the maker of the Amiga) described it as the next big thing in home entertainment. And in a sense it is.

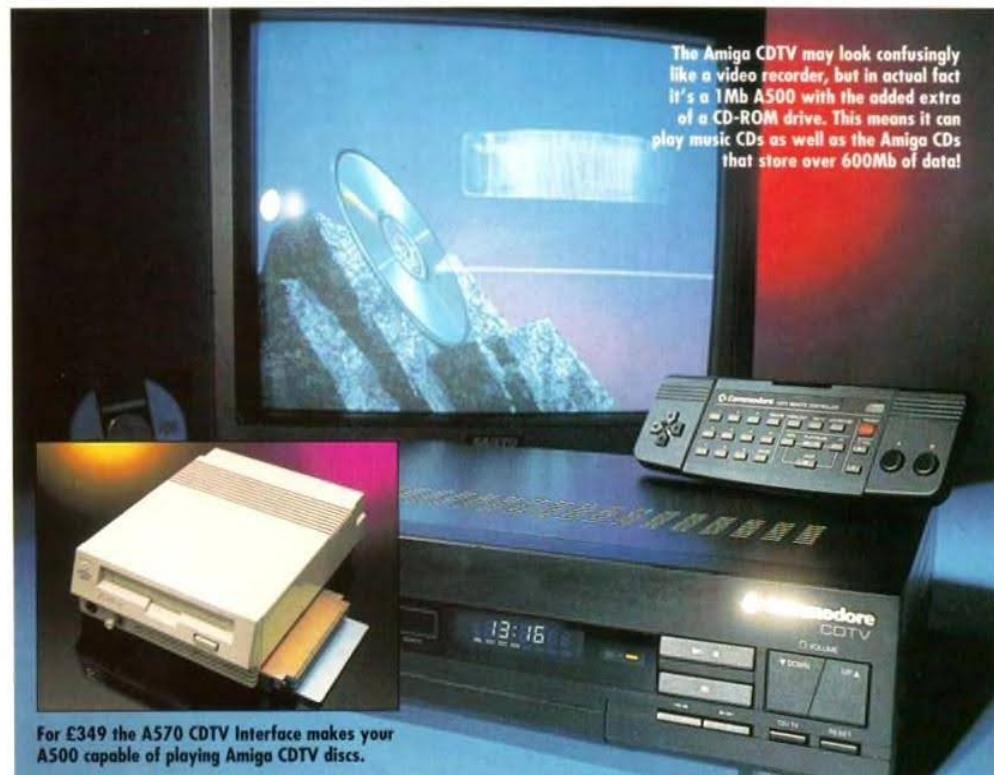
Amiga CDTV is different from a normal Amiga in two ways, apart from the way it looks. Instead of using a joystick or mouse, you control it with an infra-red remote control, just a little different from the one you use with your video recorder. And instead of a floppy disk drive, it has a CD player.

For starters, this means that it can double up as a hi-fi CD player, so you can plug it into your stereo system and play ordinary compact discs on it, giving you all the sound quality and convenience you'd expect. But there is a more important reason for the CD player being in there.

Specially printed CDs can store Amiga data (compact discs are digital, in just the same way computers are) so programs can be stored on CD and run on the Amiga. The great thing about this is that whereas a floppy disk can store less than a megabyte of data, a CD can store more than 600 megabytes.

This absolutely enormous storage capacity doesn't mean everything about the Amiga will change overnight. Arcade games, for instance, have grown in cleverness so that they can continually do more astonishing things in very limited storage space. But there's quite a number of things to which it could make a significant difference.

In particular, the kind of adventure games that American firms like Origin and Lucasfilm (now called LucasArts) specialise in – games



Amiga CDTV

It's either the future of home entertainment and the future of the Amiga, or it's a misguided and over-ambitious idea. Which? Well, the correct answer is entirely down to whether the software makes it worth buying...

like the already-classic *Secret of Monkey Island 2*, widely regarded as the best adventure game ever made – can make use of this extra storage to do the most astonishing things with attractive graphics and sound. The theory is that games will develop with ever more realistic graphics and sound, until they are more like

interactive movies than the kinds of games we know today.

CD data storage also makes plenty of room for new kinds of computer programs, which are loosely grouped together under the fairly unhelpful description of 'multimedia'. This basically means computer 'presentations' ♦

AMIGA CDTV A-to-Z

Here's the full alphabetical list of all the 100 or so titles which are, in theory, currently available for Amiga CDTV. In practice, only about 60 of these titles are on sale as we go to press, so some feature a 'TBA' (to be announced) rating. We have quoted manufacturers' names, but in fact all are published by Commodore under the name of CDTV Publishing.

ADVANCED MILITARY SYSTEMS

Dominion £29.99
A complete 'coffee table book' on CD, with lots of pictures and text describing the world's most powerful and exciting military technology, from jump jets to Challenger tanks. This should make it pretty popular with the average young Amiga-owning lad, but it's one we have not yet reviewed.

Amiga Format rating TBA

ALL DOGS GO TO HEAVEN

Merit Software £34.99
Simple kids' colouring book based on the hit Walt Disney cartoon movie of a year or more ago. You flick through the line drawings to find one you like, then pick coloured pens to fill in the areas of colour. The whole thing is nicely done, but ultimately it is so simple and trivial that it seems a sad waste of CDTV's capacities.

Amiga Format rating 25%

AMERICAN HERITAGE ILLUSTRATED DICTIONARY

Xiphias £49.99
This dictionary makes it easy to look words up, and words can be spoken out loud which is very helpful if you don't mind the American accent. What the American origins don't affect is the words – there's lots of English English – but on the down side the pictures are very throw-away and some definitions use long words that aren't in the dictionary!

Amiga Format rating 45%

AMERICAN VISTA ATLAS

Applied Optical Media £54.99
Detailed digitised maps are only the beginning (and the most disappointing part) of this very entertaining guide, a comprehensive visual tour of the United States with plenty of good digitised pictures. Just as good for geography lessons as for planning your next holiday.

Amiga Format rating 75%

ANIMALS IN MOTION

On-Line £29.99
An enormous library of black-and-white digitised pictures from the works of Eadweard Muybridge, the Victorian photographer renowned for his pioneering studies of movement. Stored as Amiga IFFs and anim files, these make a useful resource for Amiga animators.

Amiga Format rating 55%

ANIMATED COLOURING BOOK

Gold Disk £24.99
The last we heard, Gold Disk was reconsidering the release of this kids' colouring book, but Commodore seems to be quite sure it's on the way. We expect it to be pretty much along the same lines as *All Dogs go to Heaven*.

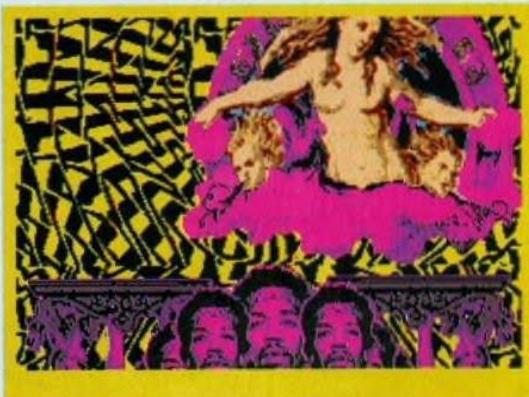
Amiga Format rating TBA

ASTERIX BLACK GOLD

Eurotalk/Microdeal £34.99
Digitised storybook: see *Read with Asterix* below.

Amiga Format rating TBA

MUSIC LIKE YOU'VE NEVER SEEN IT?



Jimi Hendrix, live in your living room. This typical CD+G disc is a normal music CD, but if you play it on your CDTV and attach the TV, you can watch animated sequences of colourful graphic images.

They're by no means common yet, but CDTV can play what's known as CD + Graphics, or simply CD+G, discs. These peculiar things are normal music compact discs, but with one particularly exciting difference: if you play them on a CDTV you can also plug in your telly and get the benefit of graphics that are hidden away on the discs.

The graphics themselves are mostly either just lyrics for the songs or pretty pictures to 'set the mood'. Loading is quite slow, so full animation is simply not possible, but the flashy palette changes and scrolling are both quite effective.

CD+G discs are as yet fairly uncommon in the UK, and only one record label, Warner, publishes any so far. Most notable of the few artists whose discs have had graphics added are Jimi Hendrix, Lou Reed, Fleetwood Mac, 10,000 Maniacs and Chris Isaacs.

The discs of classical music that are currently available tend to be more imaginative in their use of graphics, with descriptions of what's going on at various points in the music and explanations of the musical form, as well as transcriptions of the lyrics.

Another offshoot of this is karaoke discs, where the on-screen graphics are the words of the song and the soundtracks don't have the words in. By karaoke standards, a CDTV plus discs is a pretty cheap setup, and you may well find, if you peer behind the bar of your local karaoke fun pub, there's a CDTV doing the honours.

that use the different 'media' of pictures, sounds and text to get information over to the user.

A typical example would be an encyclopaedia. For starters, an encyclopaedia is a collection of an enormous amount of information, and a CD is the first kind of computer storage that can hold that quantity of information.

Secondly, a multimedia encyclopaedia should make it easy for you to find the information you need. Offering you menus and lists on the screen, a good multimedia program would in theory be much easier to use than the average book.

Then there's the potential to use several different kinds of media to explain something. If you looked up 'Concord' for example, you might get text on the screen telling you about it, hear a narrator speaking that text, see a slideshow of pictures of the plane in action, watch animations of how the famous drooping nose works and so on. The possibilities are endless...

CDTV program discs are known as 'titles'. Currently, the list of titles available breaks down into two main categories, games and books, with a few miscellaneous items kicking around as well.

Most of the games to date have been straight conversions ('ports' as they are known) of Amiga games. Some of these, however, have a little extra added. CDTV can load and run an Amiga game and then play a soundtrack as real audio, so some games (like *Sim City* on CDTV) have a real audio soundtrack added. Others, like the flight sim *Falcon*, might include all the extra missions on the original disc rather than on extra 'mission disks'. Still others might have a little extra in the way of intro animation, like *Wrath of the Demon*. And one thing we are looking forward to is compilations of quality Amiga games, many tens of which could fit on one CD.

But overall, games to date have been disappointing because they have not made the most of CDTV's extra storage space. The notable exception is *The Case of the Cautious Condor*, which is a reasonable little murder mystery adventure spiced up with heaps of lovely cartoon graphics.

The books side falls mainly into two categories: kids' books and reference works. The

major hurdle these have to overcome is the challenge of being more interesting or useful than an ordinary book, on paper, would be. Mostly they haven't succeeded.

Some of the ideas are fine: for instance, one of the encyclopaedias enables you to look up Martin Luther King and not only see a picture of him and read about him, but also listen to a recording of his famous "I have a dream..." speech. Unfortunately, these moments of excitement are few and far between.

The best of the reference books available to date are probably the *World Vista Atlas* and the *American Vista Atlas*, which combine the basic ingredient of maps with some imaginative uses of sound and graphics, and the *New Grolier Encyclopaedia*, which is lavishly illustrated with Amiga-originated pictures throughout.

At the very least, the idea of buying your Amiga programs on a CD should be appealing. CDs are less likely to wear out or be damaged than floppy disks, and CD versions tend to have enhancements like hi-fi soundtracks or added mission levels. It seems that some game publishers are likely to release new titles simultaneously as CDTV discs, for the same price as the floppy versions, so after your initial investment you'll be getting more for the same price.

Commodore has now released the CDTV in a pack complete with keyboard, floppy disk drive and Workbench disks, so it's easy to use it as a normal 1Mb Amiga and keep getting the benefit of your existing software. If you own an A500, you can trade it in for £200 when buying the new CDTV pack, getting it for only £399.

This is still only going to be good value if some CD-based titles that knock your socks off become available. So far, we haven't seen the top-class title that will guarantee CDTV makes it. In the meantime, here's a look at some of the best titles that have been released so far.

AMIGA CDTV A-to-Z

ASTERIX BLACK GOLD FRENCH 1 & 2

Eurotalk/Microdeal £34.99 each

See Learn French with Asterix below.

Amiga Format rating TBA

ASTERIX BLACK GOLD SPANISH 1 & 2

Eurotalk/Microdeal £34.99 each

See Learn French with Asterix below.

Amiga Format rating TBA

BARNEY BEAR GOES CAMPING

Free Spirit £29.99

We've not seen this, but we have seen sister title *Barney Bear goes to School* (below) so you know what to expect.

Amiga Format rating TBA

BARNEY BEAR GOES TO SCHOOL

Free Spirit £29.99

Three mouse-button clicks in the allegedly 'interactive' animation intro of this title take Barney to school, where he can choose from three pathetic educational games. The title tells you just about all that happens of any interest. Poor.

Amiga Format rating 11%

BASKETBALL

CDTV Publishing £29.99

A standard American arcade game translated to CDTV from the Amiga. We'll have to see about this one...

Amiga Format rating TBA

BATTLECHESS

Interplay

A conversion of the classic computer game. It's essentially a simple chess game with very few options for changing the way you play. But it's all spiced up by a very nice animated display and it does play a very good game of chess.

Amiga Format rating 75%

BATTLESTORM

Titus

A very average viewed-from-above shoot-'em-up transferred direct from the Amiga. It makes little use of the potential that CDTV has to offer - not what you'd call good value.

Amiga Format rating 37%

A BUN FOR BARNEY

BBC Multimedia

Enterprising and charming kids' book with lovely graphics and a satisfying exploratory interactive approach. One of the pace-setters in the whole CDTV field.

Amiga Format rating 79%

CASE OF THE CAUTIOUS CONDOR

Tiger Media

Superb cartoon graphics make this 'Agatha Christie' style murder mystery a lively experience, though the gameplay is a little stilted and undemanding. A tantalising taste of what CDTV could one day become.

Amiga Format rating 79%

CASINO GAMES

Saen Software

Three simple arcade games: fruit machine, roulette and a sort of poker. You do get a choice of several hi-fi music tracks as accompaniment, but that makes absolutely no difference to the very poor games. If this is the sort of thing you're after there's better stuff available in the public domain

Amiga Format rating 21%

CD REMIX 2

Microdeal

A unique music system enables you to take audio CDs from your collection and get them to play in loops and sequences, creating your own remixes. It's very clever and the results are fun and effective.

Amiga Format rating 80%

CDTV SPORTS FOOTBALL

Cinemaware

Converted from one game in the famous *TV Sports* series, this is yet basic Stateside rugby-type football. A popular but aged Amiga game, converted.

Amiga Format rating TBA

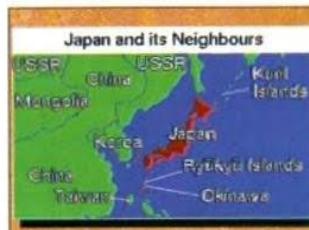
CHAOS IN ANDROMEDA

On-line

A standard space epic adventure game which ultimately fails because it is confusing and pretentious. Reminiscent of the PD games you can't help tripping over.

Amiga Format rating 33%

JAPAN WORLD GLOBAL LEARNING SYSTEMS



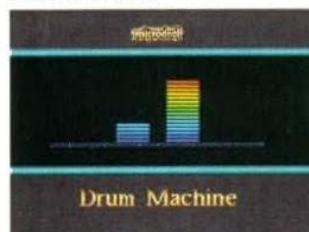
Caution: this title knows Judo, Kendo and 10,000 other Japanese words.

With a rating of 89%, this is the one we've picked out as the best CDTV title released to date. Developed to help Derbyshire schoolchildren learn more about the Japanese, it's a fascinating disc for anyone who wants to know more about the ways of the East.

What it really does well is simply be interesting, but along the way it exploits the multimedia idea really well. It has lots of graphics, photos, animations and sound to show you the ins and outs of Japanese life and culture. You can even learn the basics of the Japanese alphabet and language. A genuinely intelligent and absorbing exploration is guaranteed.

CD REMIX 2

MICRODEAL



Always wanted to remix your favourite CDs? Of course you have! Now you can.

NEW GROLIER ENCYCLOPAEDIA

CDTV PUBLISHING



The New Grolier Encyclopaedia stands out because of its excellent pictures.

This is a simple but clever idea, and it stands out because it's something that only CDTV could do. Essentially it's a kind of music sequencer, but it works by taking precise timings from your music CDs, which mean you can loop and repeat sections of a record to make your own extended remix versions. Lots of fun.

The reason this American reference book stands out is that it has lots more pictures than most, and that's because it uses Amiga graphics throughout. The pictures are useful and attractive, which makes it a useful guide as well as a good-looking book to simply browse through. Unfortunately, it's only available in the US.

£49.99

£29.99

\$99

GAMES WITH FRONTIERS



Sim City lets you take control of your own city. *Megalomania?* No, that's another game entirely.



Fresh new game concepts are few and far between, but *Lemmings* is one – and it's fun.



For sound and graphics, *Cautious Condor* is outstanding. Is this the future of CDTV gaming?

To date, we haven't seen a really good, pure CDTV game. In other words, we haven't seen anything that you couldn't possibly have done on a normal Amiga and that is also brilliant in its own right.

The best games to date are converted Amiga games. *Lemmings* is a straight port of the Amiga version and is only any less wonderful if you use the infra-red remote control, because it makes your control of the game far too imprecise for the levels that demand fast work.

The best CDTV game to date is almost certainly *Sim City*, which is considerably developed from the original Amiga version. It's had a whole bunch of new scenarios added, covering different periods of history, each with appropriate graphics and monsters. It also has a nice Zoom mode for a magnified view. Add to all this a decent hi-fi soundtrack, recorded in the studio, for added atmosphere and you're well away. Just different enough from the original to be a step on.

Developed specifically for CD-ROM, *The Case of the Cautious Condor* is absolutely outstanding, with masses of very attractive cartoon graphics and a very nice soundtrack. It's won awards in many countries for being the best example of multimedia software, but that was mostly in the days before there was any multimedia software.

It's a bit like playing an interactive movie and is the sort of thing that could only be done on a CD, which is to its advantage. The only let-down is that the gameplay is pretty basic and unfulfilling, being your random 'collect clues and solve' scenario. Still, you really ought to take time to see it sometime, even if you just watch the 20-minute cartoon animation introductory sequence.

CINDERELLA

Discis

£39.99

Discis produces digital versions of a number of popular kids' storybooks, all of which use the same basic system, so it's worth explaining here how the system works. Essentially, what you have on the screen is the left- and right-hand pages of an opened book which has the words and the pictures digitised in pretty good colour.

A narrator speaks the story and music plays in the background. You can stop, replay or jump around the story at will. You can click on words or parts of the pictures to have the words spoken or the part of a picture described. An option allows the story to be read in Spanish, America's second language.

This system is consistently good, though the flaw in seeing delicate watercolour illustrations in a digitised form is obvious. Inevitably, Discis books vary in appeal according to the story. This one is a particularly wishy-washy and a very American version of the fairy tale standard.

Amiga Format rating 70%

CLASSIC BOARD GAMES

Merit Software

£34.99

Basically it's a compilation of three simple little Amiga games. Includes the old standard board-game conversions chess, backgammon and checkers. We haven't seen it yet, so we're looking at...

Amiga Format rating TBA

CONNOISSEUR FINE ART COLLECTION (THE)

Lascelles

£34.99

Nicely-presented 'coffee table book' tour of art through the centuries, centring on digitised pictures with descriptive text and supplemented by an audio soundtrack of 10 appropriate classical music tracks. It's nicely created, but you can't help but ask who would sit down and 'enjoy' it?

Amiga Format rating 77%

DEFENDER OF THE CROWN

Cinemaware

£29.99

This once-famous game's attractive animated linking scenes benefit well from an audio soundtrack, but the game itself is pretty trivial.

Playing the part of a knight, you have to do a little bit of intelligent strategy work, keeping up your castle and your people, and also takes part in a few arcade sub-games, fighting your way into a castle or winning a joust. The result of this mixture is a trivial game that doesn't gain much from the attractiveness of the effects of which CDTV is capable.

Amiga Format rating 48%

DEFENDER OF THE CROWN 2

Cinemaware

£34.99

A fiver more for the sequel, probably because it's newer and a lot better (it says here), but we can't be sure until we see it. Out soon.

Amiga Format rating TBA

AMIGA CDTV A-to-Z

DINOSAURS FOR HIRE

CDTV Publishing

£14.99

A comic book on a disc. You might well ask, what's wrong with a comic book on paper? We can't tell you, because we haven't yet seen it.

Amiga Format rating TBA

DOG FACTS

Intersearch

£34.99

Also known as 'Fidofax' (ha ha!) this is a dog care book by the same people who do the Gardenfax series for gardeners noted below. If it follows that standard, it will be informative for dog owners but not much of a looker.

Amiga Format rating TBA

DR WELLMAN, FAMILY HEALTH ADVISOR

Digital

£54.99

Narration throughout by a professional actor and a decent presentation of information are the strong points of this medical reference title. Where it falls down ever so slightly is that it lacks the feel of absolute authority a medical guide needs, but it's an informative and intelligent work.

Amiga Format rating 78%

EUROPEAN SPACE SIMULATOR

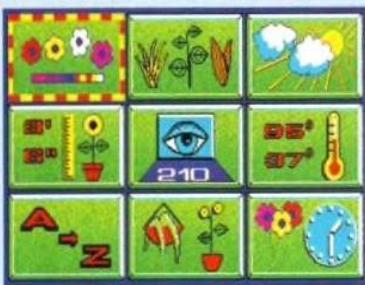
CDTV Publishing

£34.99

A 3D game based on space exploration, though Europe's space contribution is comms satellites. Not yet reviewed.

Amiga Format rating TBA

MULTIMEDIA PRESENTATION: THE GOOD AND THE BAD ON ONE DISC...



Gardenfax is not an outdoor facsimile machine. It's actually a multimedia reference work.



To find what you want, you start by narrowing down parameters like Temperature and Light...



Of course, you could do it the way people do at a garden centre: "Ooh, that looks nice, Mum..."

The *Gardenfax* series is a set of four CDTV discs on the subject of gardening. While nobody but an aspiring gardener would want to buy them, and in some ways they are very amateurish, there's a couple of things about the way they are presented that make them exemplary.

With a multimedia reference work, one of the most important things is how you get at all the masses of information stacked inside. *Gardenfax* has come up with a very clever way of doing it. In the middle, there's a number which represents the number of plants under consideration. When you start off it's 200 or more, because the whole list of plants is available.

To reduce the list, you work your way around the panels at the outside of the screen, checking off the various categories you are interested in. You might, for example, start off at the Light panel and decide you want to consider only the plants that grow in very little light. Then you might move on to the Temperature category and specify plants that don't mind the cold, then the colours section, to choose plants which have blue flowers.

Each time you pick a type of plant, the total number in the centre of the screen is reduced. When it's down to a manageable quantity, you click on the view icon and browse through brief descriptions of each plant, each accompanied by a photograph. If you want, you can then choose to read a lot more about each one.

Although it lacks polish – the graphics on the front end are garish enough to make you heave, and many of the photographs are a bit off-colour – the basic idea is solid and extremely well thought-out. And you can imagine someone using it. Which is why we awarded it an 85% rating.

AMIGA CDTV A-to-Z

FALCON

Mirrorsoft £49.99
The famous flight sim complete with all the missions that were originally on separate disks. The use of audio CD capabilities extend only as far as 'radio contact' messages in real speech, but these do add a lively atmosphere.

Amiga Format rating 75%

FAMILY CIRCUS VIDEO TITLER

CDTV Publishing £TBA
A video titling package for use by the amateur enthusiast with a camcorder and a genlock. Out soon.

Amiga Format rating TBA

FRACTAL UNIVERSE

CDTV Publishing £34.99
A so-called exploration of the amazing world of fractals and chaos theory, from simple recursive equations to the Mandelbrot set. We've got no idea how this works, so we can't judge it yet, but it should – if they do it properly – enable you to create your own fractals in real time.

Amiga Format rating TBA

FRED FISH CD-ROM COLLECTION

Hypermedia Concepts £19.99
An enormous collection of freely-distributable public domain software under the familiar Fred Fish name. If it's PD, it's probably here. This is a real treasure trove. This disc comes free with the A570 and also with CDTV from some sources.

Amiga Format rating 89%

FUN SCHOOL 3 (UNDER 5S)

Europress Software £24.99
A collection of six little educational games which deal with terribly basic concepts such as numbers and letters. Kids genuinely enjoy having a bash at it and can be left to their own devices once they've mastered the mouse. Pity it's a straight Amiga port.

Amiga Format rating 70%

FUN SCHOOL 3 (5S-7S)

Europress Software £24.99
This version of educational games for older kids has some more enterprising ideas, but exactly the same applies as for the Under 5s version above.

Amiga Format rating 70%

GARDENFAX: FRUITS AND VEGETABLES

Intersearch £34.99
A surprise hit, the unclassy but extremely effective method of giving you access to a huge green mass of information on plants makes for a winner. Essentially, the system is a catalogue of plants that helps you pick the best one for the growing conditions you have in mind.

Amiga Format rating 85%

GARDENFAX: GARDEN PLANTS

Intersearch £34.99
Same presentation as above, different subject. Still good.

Amiga Format rating 85%

GARDENFAX: INDOOR PLANTS

Intersearch £34.99
Again, essentially the same as the *Gardenfax* title on the subject of fruits and vegetables (above).

Amiga Format rating 85%

GARDENFAX: TREES, SHRUBS, ROSES AND CONIFERS

Intersearch £34.99
What can we say? The fourth volume in the series reflects exactly the same approach as those above.

Amiga Format rating 85%

GUINNESS DISC OF RECORDS

Guinness £34.99
Like the big-name book, this title covers the gamut of world records but presents them through pictures and text along with the odd bit of speech and animation. Lots of digitised photos and a 'tour' option with narration make it accessible, widespread use of Amiga graphics works well, but you're still left wondering if this is better than books or video.

Amiga Format rating TBA

HEATHER HITS HER FIRST HOME RUN

Discis £34.99
Presented in the same manner as all Discis books (see *Cinderella*, above) this is a slightly slushy tale of American kidhood. As if you couldn't have guessed.

Amiga Format rating 70%

TRIVIAL PURSUIT

DOMARK



It's *Trivial Pursuit*, not *pursuits*, and *Genus* edition, not *genius*. As you know.

LEARN FRENCH WITH ASTERIX

EUROTALK/MICRODEAL



Learn French with Asterix and learn that the names are even cleverer in French.

£49.99

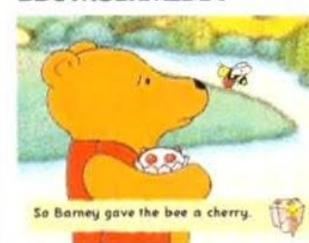
We've picked this one out more by dint of its famous name than because it's a high-quality CDTV title. It has lots of good ideas that enhance the famous quiz game, but some of them fall a little bit flat. All the same, if you like *Triv* and you're tied to your CDTV, this disc should give you some good, clean fun. Give it a whirl.

£34.99

A digitised version of the famous comic book. You can play this back in a number of ways to help you practise your French. Pretty naff, until you plug Microdeal's VoiceMaster microphone in to your CDTV. You can then record phrases into your CDTV's RAM and play them back, comparing them to the original French from the soundtrack – an original and extraordinarily effective way of improving your pronunciation of a foreign language. Spanish versions of the disc are to follow.

A BUN FOR BARNEY

BBC MULTIMEDIA



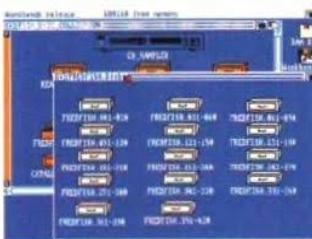
Tom Baker narrates a delightful story about Barney, with not a Dalek in sight.

£29.99

The multimedia idea seems to be particularly suited to explorative games for children, and this is the best yet. The graphics and the story (narrated by ex-Doctor Who Tom Baker) are delightful. Kids can move the pointer around the screen to discover areas where it goes 'active', and when it does, they can click the button to make all kinds of fun things happen. It's very sweet, and possibly the only really original idea yet seen on CDTV.

THE FRED FISH COLLECTION ON CD-ROM

HYPERMEDIA CONCEPTS



The Fred Fish Collection – a whole range of Amiga PD programs on one single CD.

utilities. It just shows what CD-ROM storage capacity can do when used for normal Amiga purposes.

AMERICAN VISTA ATLAS AND WORLD VISTA ATLAS

APPLIED OPTICAL MEDIA



The world is your oyster – well, it's a CDTV multimedia experience at least.

you'd expect, it's got big digitised maps that you can scroll around, but these are the least exciting part by a long way.

For many (but not all) of the countries in the world, you can go on a sightseeing tour, with heaps of photographs of the landscape, listen to the local music and even learn a few phrases of the language. That's pretty hot stuff.

In certain areas of presentation this title falls down, but the most annoying thing about the disc is that there are so many omissions. This is why, in the end, we gave its sister title *American Vista Atlas* a higher score: because the subject area is smaller, the American atlas seems much more comprehensive, giving a valuable tour of the States which makes the title ideal for educational use, or just for checking out where you want to go on holiday.

£19.99

Plug an Amiga external disk drive in to your CDTV and boot it with a Workbench 1.3 disk, and you can load, run or save out any of the many hundreds of public domain programs on this extraordinary resource disc. It doesn't just bring you a handy selection of interesting programs; there's everything here, from quite respectable games to useful

There's a lot of people in the computer industry who will enthuse about the idea of multimedia. "You can do all these amazing things," they say, "show stuff and hear it at the same time – really get the full idea". But so often you simply can't.

One title that really brings over some of these exciting ideas is the *World Vista Atlas*. As

HEROIC AGE OF SPACEFLIGHT

Troika £19.99

This is essentially just a video in 32 colours and a quarter of the screen, but the accessibility of the information it presents and the structure of multiple layers of data (you can 'zoom in' for more info) make this work quite well.

Amiga Format rating 55%

OUND OF THE BASKERVILLES

On-Line £29.99

Multimedia entertainment with the fun taken out of it. Reams of text and only the odd picture make this classic Conan Doyle tale into a tedious mess of on-screen words.

Amiga Format rating 12%

HUTCHINSON'S ENCYCLOPÆDIA

Attica Cybernetics £49.99

One of the discs free with CDTV, this encyclopaedia is poorly presented. Fun bits, with real sound and pictures, are great when they come along, but all too rare.

Amiga Format rating 47%

ILLUSTRATED HOLY BIBLE

Animated Pixels £29.99

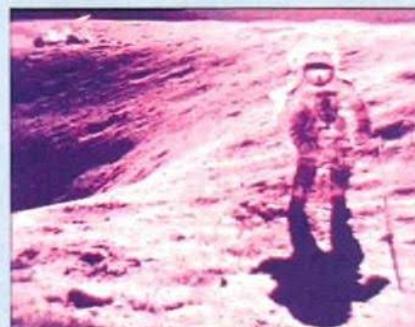
Type in all the words of the bible, digitise a few stereotypical watercolour pictures and you end up with the most unpleasant way of reading a book. Apart from the fact that you can search for words, it seems utterly pointless.

Amiga Format rating 25%

WHY WATCHING TERMINATOR 2 ON CD WILL SOON BE POSSIBLE...



He promised he'd be back, and he is. What's more, he may eventually make it on to CD in full-screen full-motion. If only they could fix that accent as well...



Is this the shape of things to come? Heroic Age of Spaceflight is a full-motion video on CDTV, but only in 32 colours and occupying a quarter of the screen.

Interactive multimedia CDs are such a vague idea that many pundits believe the masses will only cotton on if you tell them it lets you take control of your television. Unfortunately this isn't quite true: what CDTV and its rival, Philips CD-I, can't yet do is what's called full-screen, full-motion video (usually shortened to FMV).

In other words, to date you can't actually have a moving image, such as a television picture, and make it move exactly how you want it to under your control. In fact, you can't actually have video images running from a digital disc at all.

FMV is a great concept, because when it happens you will be able to buy digitally recorded videos on CD in just the same way you now buy digitally recorded music CDs. And they will also be able to make live action video a part of CDTV discs.

An international standard for FMV is being worked on by a group called the Motion Picture Expert Group (MPEG), and when it is finished – very soon, now – anyone will be able to make use of the chips MPEG devices to make FMV possible.

The problem is that it takes a lot of

data to make up a full-colour, full screen television image. And to make the picture move realistically, you have to put 25 images on to the screen every second, which is far more data than you can possibly read from a CD in that amount of time. So MPEG is finding a way of reducing the amount of data by a method called 'compression'. Until then, CDTV has its own half-way house. It's called CDXL and is basically an Amiga animation that takes up a quarter of the screen and runs at the speed of video, so it looks like a real video.

The only title to date to make use of CDXL is Troika's *Heroic Age of Spaceflight*, which uses excellent NASA video footage. What's interesting about it is the way you can pause the video at any point and seek more information in the form of full-screen pictures and text. It's not a great title in itself, but it's worth seeing as a taste of the video age to come...

AMIGA CDTV A-to-Z

ILLUSTRATED COMPLETE WORKS OF SHAKESPEARE

Animated Pixels £29.99

Again, simply page after page of on-screen text and the odd line drawing give the lie to the idea that CD is likely to take over from books.

Amiga Format rating 25%

INDIANA JONES

LucasArts £34.99

Supposedly the first of several excellent games converted from the Amiga by the people who brought you those greats *Loom* and *Monkey Island*. But it now seems possible that Lucasfilm will not be entering the CDTV market after all. The company, set up by George Lucas of *Star Wars* fame, has changed name to LucasArts and changed tack slightly. Both *Loom* and *Monkey Island* were originally due to be converted, but both titles have now disappeared from the 'forthcoming' list in Commodore's catalogues. More news in the monthly *Amiga Format* as and when we have it.

Amiga Format rating TBA

INSIGHT: TECHNOLOGY

Optonica £TBA

An animated encyclopaedia of 'how it works' information. Each of the 200-odd entries has pictures, animation and video footage, the vast majority of which has been originated on the Amiga. Looks very promising.

Amiga Format rating TBA

JAPAN WORLD

Global Learning Systems £49.99

Probably the best title to date, this exploits the potential of multimedia better than any yet released, with a combination of pictures, graphics and animations that makes a highly enjoyable dip into a very different culture. Lots of fun.

Amiga Format rating 89%

JACK NICKLAUS GOLF

CDTV Publishing £39.99

Golf game conversion. Not yet reviewed.

Amiga Format rating TBA

LEARN FRENCH WITH ASTERIX DISCS 1 & 2

Eurotalk/Microdeal £34.99 each

A digitised cartoon book with narration in French. A new dimension is added when you use the VoiceMaster gadget (see below) to record your own attempts at speaking French. The package is surprisingly good. You need both discs for the complete 'Asterix and Son' story, but each disc can stand alone. Also available is a Spanish version, and due out soon is another two-disc set in each language.

Amiga Format rating 84%

LEARN SPANISH WITH ASTERIX DISCS 1 & 2

Eurotalk/Microdeal £34.99 each

See Learn French with Asterix.

Amiga Format rating TBA

AMIGA CDTV A-to-Z

LEMMINGS

Psygnosis £34.99
This is still a great game even though it's just the normal Amiga version and somewhat spoiled by the laggardly, notchy nature of the CDTV remote control. This can make it tricky on levels where speed, as well as thought, is required. If you have a mouse-controlled CDTV system, get it.

Amiga Format rating 75%

A LONG HARD DAY AT THE RANCH

Discis £34.99
Presented in the same manner as all the Discis books (see *Cinderella*, above), this is another that is just a little too sentimental for UK tastes.

Amiga Format rating 70%

LTV ENGLISH

CDTV Publishing £34.99
An English language-teaching system for foreign students. Written by Americans, so presumably for them. Out soon.

Amiga Format rating TBA

MIND RUN

Crealede £29.99
The French are renowned for odd computer games, and this little collection of memory and IQ tests is bizarre in the extreme. And, unfortunately, not much fun.

Amiga Format rating 32%

MIND RUN 2

Crealede £29.99
More of the same, one would imagine. Out soon.

Amiga Format rating TBA

MOVING GIVES ME A STOMACH ACHE

Discis £34.99
Presented in the same manner as all the Discis books (see *Cinderella*, above), this is one of the more charming stories, with particularly lovely pictures. It makes a difference from sentimentality giving you a stomach ache...

Amiga Format rating 70%

MUD PUDDLE

Discis £34.99
Presented in the same manner as all the Discis books (see *Cinderella*, above) this has to be the best of the titles. Great 'I can relate to that' storyline and mercifully little of the sentimentality that flaws most of the others. Yet it's still very cute. So, how did you get covered in mud then?

Amiga Format rating 70%

MUSICOLOUR

Virgin £49.99
This soon-to-appear music-teaching system is based on the supposedly revolutionary methods of Candida Tobin, which help you remember music by relating it to colour. If you've always believed you could learn music, this could be the answer. Could be excellent.

Amiga Format rating TBA

MUSIC MAKER

Music Sales £34.99
Interactivity in this greatest-hits jukebox disc means pushing buttons to play drum noises along-a-rock stars. It's just not fun. Shows one of the great mistakes of the naive CD age.

Amiga Format rating 35%

MY PAINT

Saddleback Graphics £29.99
This kids' paint and colouring program is great on the Amiga but fails sadly as a CDTV disc because you can't draw freely without a mouse. The inadequacies of the infra-red control system are woefully obvious in this one.

Amiga Format rating 35%

NEW BASICS ELECTRONIC COOKBOOK

Xiphias £39.99
Absolutely packed with food ideas, and blessed with a clever menu system which enables you to access information easily. Pictures are badly and uninformatively used, though.

Amiga Format rating 75%

NEW GROLIER ENCYCLOPAEDIA

Electronic Publishing £99
A simple, straightforward approach works well in this US-originated encyclopaedia, and the plentiful illustrations, hand-drawn and Amiga-originated throughout, are great. Sadly, the disc is not available in the UK.

Amiga Format rating 84%

NINJA HIGH SCHOOL COMIX

CDTV Publishing £14.99
Comic book on a disc. Not yet reviewed.

Amiga Format rating TBA

NORTH POLAR EXPEDITION

Virgin £49.99
Could be one of the best titles yet. An interactive presentation of the tale of Ranulph Fiennes' polar exploration, ideal for school project work. Should be fascinating.

Amiga Format rating TBA

PAPER BAG PRINCESS

Discis £34.99
Presented in the same manner as all the Discis books (see *Cinderella*, above) this is a great little modernised fairytale with a feminist twist. Compulsory for little girls

Amiga Format rating 70%

POWER PINBALL

CDTV Publishing £29.99
A pinball game. Commodore's competitor, the CD-I system from Philips, has one, so CDTV had to, really. And naturally enough, we don't expect it to be up to much.

Amiga Format rating TBA

PREHISTORIK

Titus £34.99
A good-looking but essentially pretty dull cutesy platform beat-em-up, by all indications converted straight from the Amiga. Not yet reviewed.

Amiga Format rating TBA

PSYCHO KILLER

On-line £29.99
If CD has the potential to bring us interactive movies, this would just about qualify as the interactive home video. Great ideas, let down by staid atmosphere and gameplay. The name is about the only thing about it that's half exciting (and even then it's only half exciting).

Amiga Format rating 13%

RAFFLES

CDTV Publishing £34.99
A game based, we presume, either on the famous gentleman burglar or on the chocolates of the same name. Couldn't possibly be the renowned ex-colonial hotel in Singapore, surely. Or the cigarettes. Not yet reviewed.

Amiga Format rating TBA

READ FRENCH WITH ASTERIX

Eurotalk £29.99
'Asterix and Son' digitised from the cartoon book and with speech added. It's not a good way of reading a book and doesn't have the added extra that the *Learn French with Asterix* disc (above) has. It certainly doesn't have much in the way of interaction going for it.

Amiga Format rating 25%

SCARY POEMS FOR ROTTEN KIDS

Discis £39.99
Presented in the same style as all the Discis books (see *Cinderella*, above) this collection of creepy-crawly rhymes is a jolly little collection. If Roald Dahl is your style of thing, this one should be right up your trouser leg.

Amiga Format rating 75%

SHERLOCK HOLMES

Icom Simulations £39.99
Subtitled 'Consulting Detective', this adventure game was unique in being developed using real actors to model for the graphics. Unfortunately, Mindscape (the software house which is supposed to be distributing this) has no details of its release. Not yet reviewed.

Amiga Format rating TBA

SIMCITY

Infogrames £29.99
This version of the 'god-game' that gives you a whole city of your own to take control of, or lose control of, is very like the Amiga version, but updated with new ideas and presentation that make it possibly the best CDTV game to date.

Amiga Format rating 75%

SNOOPY: THE CASE OF THE MISSING BLANKET

The Edge £34.99
Colourful cartoon animation and simple 'seek the object' puzzle gameplay make this a reasonably good diversion for the young stuck indoors on a rainy day, but it's uninspired and probably won't hold their interest if the sun's out and there's something else on offer.

Amiga Format rating 36%

SPIRIT OF EXCALIBUR

Virgin £34.99
The Amiga version is an average action adventure game set in the mythical world of – you guessed it. Can the CDTV disc add anything truly remarkable?

Amiga Format rating TBA

TALE OF PETER RABBIT (THE)

Discis £39.99
Presented in the same style as all the Discis books (see *Cinderella*, above) this Beatrix Potter classic stays mercifully faithful to the original and needs no introduction.

Amiga Format rating 70%

TALE OF BENJAMIN BUNNY (THE)

Discis £39.99
Presented in the same style as all the Discis books (see *Cinderella*, above) this is another Beatrix Potter classic.

Amiga Format rating 70%

TEAM YANKEE

Empire £34.99
A straight port from the Amiga version of the tank game in which you control a squadron in a test of strategy. Good, but no enhancements for CDTV.

Amiga Format rating 65%

THOMAS' SNOWSUIT

Discis £34.99
Presented in the same way as all the Discis books (see *Cinderella*, above) this sweet American childhood tale turns a little sickly.

Amiga Format rating 70%

TIMETABLE OF HISTORY: ARTS

Xiphias £39.99
In the same series as the two *Timetable of History* discs below, but we haven't seen this one yet. Difficult to predict whether it will be a winner or a loser.

Amiga Format rating TBA

TIMETABLE OF HISTORY: BUSINESS, POLITICS AND MEDIA

Xiphias £39.99
The clever 'time-line' access system actually doesn't really help you find anything you fancy a look at, and an unwarranted American bias makes the information contained in this reference work very disappointing. If you're a student of subtle bias and propaganda, then give it a look.

Amiga Format rating 45%

TIMETABLE OF HISTORY: SCIENCE AND INNOVATION

Xiphias £39.99
With less political bias affecting the material, this makes a decent enough reference work, with some nice extras in the animated sequences.

Amiga Format rating 70%

TOWN WITH NO NAME

On-Line £29.99
This is a nicely-produced 3D cartoon adventure with a witty twist, produced cleverly with Amiga-generated 3D graphics, but the gameplay rapidly becomes repetitive and scuttles the title before it really has a chance to take off.

Amiga Format rating 35%

TRIVIAL PURSUIT

Domark £49.99
A nicely-presented version of the famous board game with the addition of some cartoon sequences and pictures that go some way towards livening it up, but the whole thing is ultimately let down by details.

Amiga Format rating 65%

VOICE F/X

Microdeal £19.99
Due out soon. Designed for use with *VoiceMaster* (below). This software performs real-time effects such as echo and distortion on your voice. Should be fun.

Amiga Format rating TBA

VOICEMASTER

Microdeal £24.99
A microphone attaches to the CDTV's serial port so you can record your voice. Designed for use with the *Learn French with Asterix* discs (above).

Amiga Format rating 80%

WOMEN IN MOTION

On-Line £29.99
A collection of animated sequences of fat, naked Victorian ladies, taken from the photographs by Eadweard Muybridge, who virtually invented freeze-frame photography but was as mad as a hatter. A useful if eccentric resource for animators.

Amiga Format rating 55%

WORLD VISTA ATLAS

Applied Optical Media £54.99
As in the *American Vista Atlas*, the maps are minimal, but the cultural and photographic tour of the nations offered by the other material included makes a fascinating disc. It includes some quite excellent ideas – for example, you can listen to the national folk music and learn a few words of the language of any country. Its problem, however, is consistency. Unless you share the views of the authors who decided a particular country was worth scarcely any coverage, you may be a little disappointed.

Amiga Format rating 75%

WRATH OF THE DEMON

Readysoft £29.99
This good-looking arcade action game benefits from some very attractive intro animation in this version, but the gameplay is very much standard fare.

Amiga Format rating 32%

XENON 2

Mirrortech £29.99
This very dated shoot-'em-up is hampered by the notchy remote control system, which makes it frustrating. Still, the soundtrack with Roland '3D sound' is worth a listen.

Amiga Format rating 45%

The Amiga and CD have had a strained love affair to date. CDTV and the A570 promised much but haven't yet delivered. So will Commodore's new developments re-ignite the flame? We re-examine Amiga CD

"This will change forever the way we communicate, learn and entertain. The (CDTV) system will be used for reference works, special interest areas, surrogate travel (??), music, entertainment - and when we abandon the high ground, it will play one hell of a game!"

Comments from Commodore at the launch of CDTV, Chicago, June 1990.

"The main target audience for CDTV is the group of adults who want to provide their families with interactive multimedia information, education, and entertainment."

Clearly, entertainment and games software will be a key reason for buying the CDTV machine." Comments from Commodore to developers in the light of increasingly bad reviews of CDTV software, Chicago, April 1991.

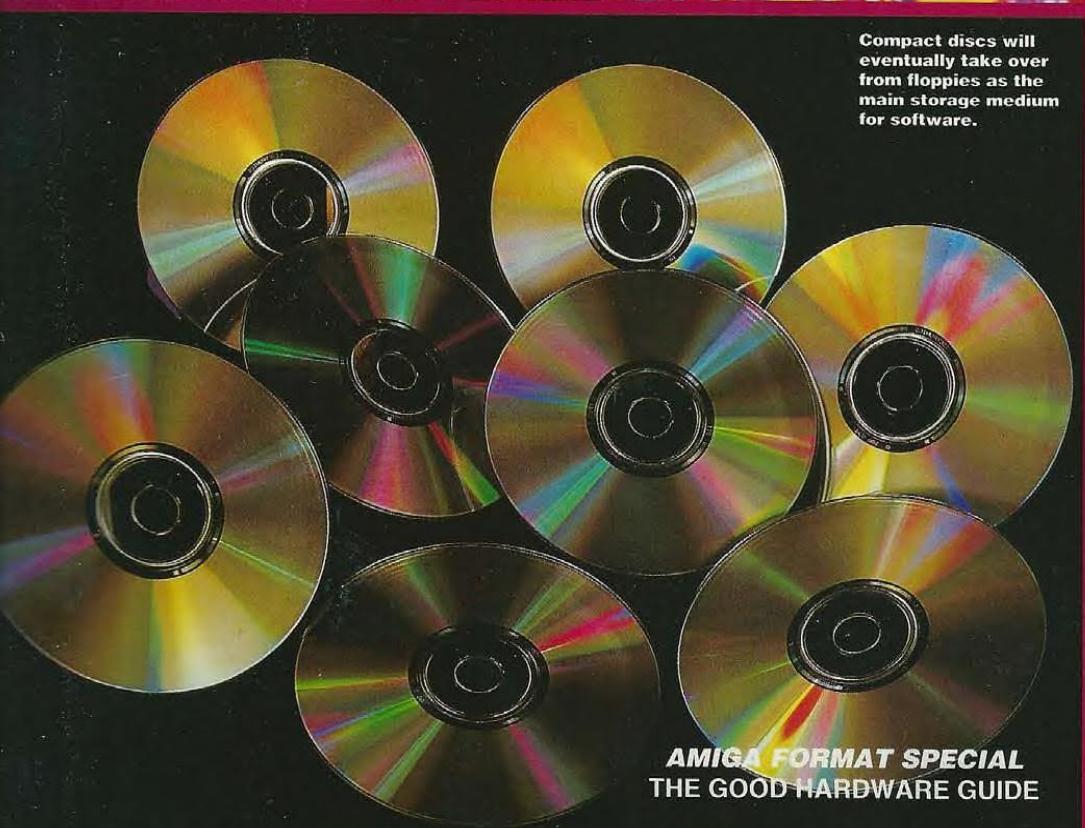
"While I agree with Commodore's sentiment, CDTV proved not to be the machine to realise it. The company is committed to interactive compact disc though, and future machines may well reveal the potential of CD."

Marcus Dyson, editor **Amiga Format**, Bath, April 1993.

Ever since Thomas Alva Edison created the first electronic recording device, the phonograph in 1878, we have sought to record information for later retrieval. Over the years we've seen a whole range of media come and go - from the gramophone to the tape and onwards to the floppy disk. Almost all of these media have been harnessed by computers for the storage of data in digital form. Without such storage, computers like our very own Amiga would be useless. As the power of these machines has grown, so the demands placed upon the storage media has grown with them; no sooner is a form of storage lauded as the "next big thing" than it's already starting to show its weaknesses.

This is exactly what has happened with the floppy disk. The very first Amiga used a 3.5 inch floppy, and at the time this was seen as a revolutionary move, one that enabled Amiga owners to place 800k of data on a single disk. Over the second half of the 1980s as the size of games has expanded, so the number of disks required for Amiga games has grown. It was during this period that computer companies started to spend research money on finding another data storage medium and in 1989 they hit upon the idea of using a CD.

CD has everything that the Amiga needs in terms of a storage medium. It offers fast access times



and room for a lot of data. What's more, it doesn't look as though it's going to be superseded within a few years because it has the capability to store so much more data; if you wanted to recreate a CD program such as Hutchinson's *Encyclopedia* it would take 650 floppy disks.

It's the capability of CD to cram so much data on to one disc that has caught the software industry's attention. For years the industry has been honing its programming techniques, trying to store as much data as possible on floppy disks using sophisticated packing techniques. Now it hardly has to worry about this, because it can plonk huge amounts of data on CD without being in any danger of running out of room.

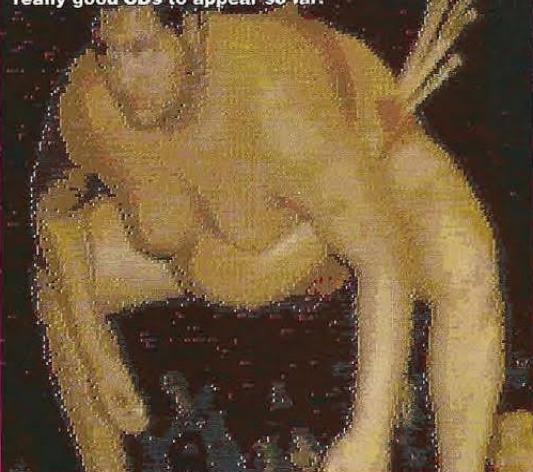
CD-ROM (CD-Read Only Memory) units operate in a completely different way to floppy disks. CDs use lasers to read data, while floppy drives use a magnetic head to read and write information. Because lasers can operate to a finer precision than magnetic heads, this means that more information can be stored on each CD. Information on the CD is stored in a series of tiny pits. These are scanned by the laser and converted into computer-readable data bytes at the rate of about 150k per second.

The main problem for the home user is that standard, shop-bought, CDs are read-only devices. However, the major electronics manufacturers are developing read/write CD technology that should be available in the next few years. At this point there are only WORM (Write Once Read Many times) disks, expensive optical drives such as the Magneto Optical (95 per cent in AF44, £999.95 from Power Computing on 0234 843388) and some very expensive (£2,000+) CD recording equipment.

Commodore decided to take advantage of the possibilities of CD by launching its own CD-based machine - Commodore Dynamic Total Vision, or

Continued over

CDs such as *Japan World* led us all to believe that the Amiga's link with compact disc would bear rich fruit. Unfortunately, *Japan World* is one of the few really good CDs to appear so far.



Writing



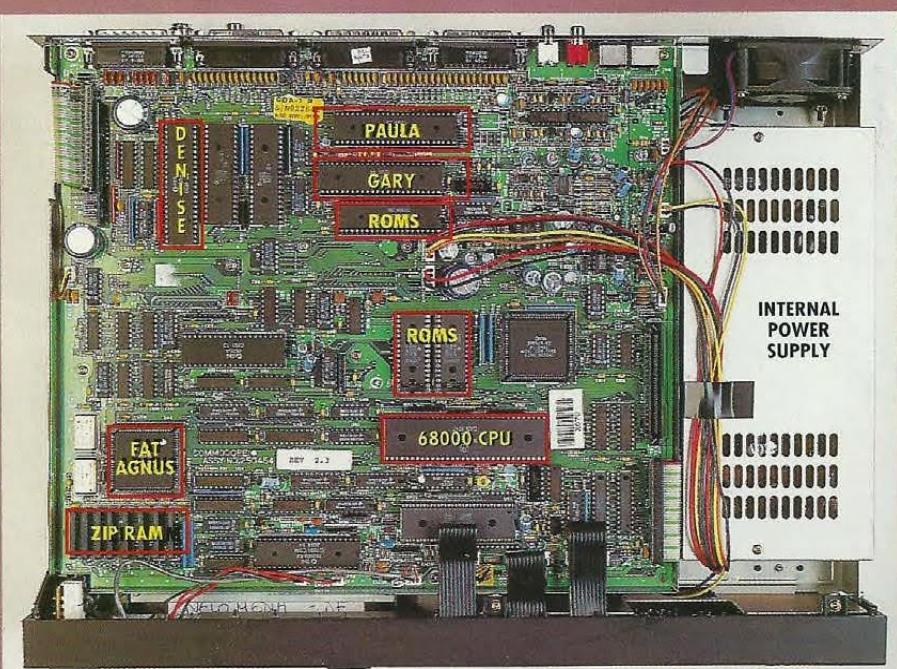
Press any key..



SEE YOUR CDTV

Here in all its native glory is a naked vision of Commodore Dynamic Total Vision. The machine that could have made (or might have broken) Commodore's fortunes. The more experienced Amiga users among you will notice some similarities between the motherboard pictured here, and that of the late (and very lamented) Amiga 500. The reason for this is simple... they are basically the same.

As you can see from the annotations we have made to this picture, the custom chips that make the Amiga the force it is are retained, with Agnus, Paula, Denise and Gary



all playing prominent parts in the running of the Compact Disc-based beastie. As you can also see, there are extra ROMs onboard this motherboard than are usually found on an A500. The reason for this is that extended ROMs are needed to cope with the extra work provided by the CD-ROM drive. This is also true of the other chips and sub-processors that you see scattered all over the board. The CD-ROM drive itself requires extra processors in order to enable it to access the discs, there is also a provision made for the use of a genlock. Happily, all of this means that if you have a CDTV, you do have an Amiga.

CDTV as it's better known – that went on sale for £599 in early 1991. This is quite simply an Amiga 500 inside a case with a CD-ROM drive. The whole set-up is operated by a remote control or, at an extra cost, by an add-on keyboard.

The CDTV machine was designed to appeal to people who aren't especially interested in computers. This is reflected in the design of the unit which looks more at home in a hi-fi stack than in a sitting room next to a monitor. Similarly the type of software created for use on CDTV machines is more suitable for the family than the computer enthusiast.

The essential difference between a standard Amiga and a CDTV unit is that while an Amiga attempts to recreate the outside world by means of computer-generated graphics and sound, CDTV reflects the outside world by using real images and real sounds. It also differs from a standard Amiga in terms of how you interact with the software.

To load a program on CDTV, you insert a CD into a special cartridge, push it into the machine and it auto-loads. Interaction with the program is far simpler than in most computers because you don't use a keyboard, you use a remote control, this means no tedious typing.

As a result most CD programs use a number of simplified on-screen icons. Because CDTV discs can use CD-quality sound, CDTV also comes with stereo jacks for connection to a hi-fi. Most CDTV games have a proper stereo soundtrack that considerably enhances the level of enjoyment.

The CDTV machine is capable of playing CDTV discs, CD-ROM XA discs, CD+G disks and normal CDs (see the accompanying boxout for explanations of these standards).

However, Commodore made some serious mistakes with regard to the expandability of CDTV, the most obvious of which is that its 2Mb of RAM can't be upgraded, something that led to a lot of criticism when it was launched. On the plus side, the unit incorporates plenty of ports on the back including: parallel interface, serial port, disk drive support, MIDI ports, remote keyboard, remote joystick, stereo audio, RGB video and composite video. So it's easy enough to connect a wide range of peripherals to a CDTV.

The main problem with CDTV is that it operates around the slow old Workbench 1.3 system and, although the CD file operations are quick, the actual processing is far too slow. This becomes obvious on processor-intensive discs such as the *Fractal Universe* disc. In effect it means that CDTV is far too slow for many of the ambitious projects envisioned for it back in the heady days of 1991.

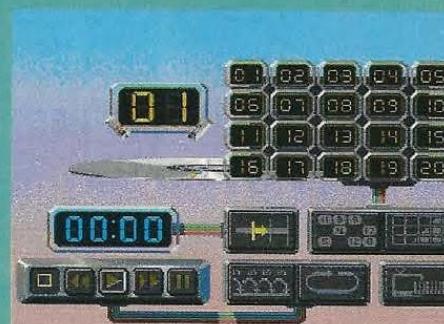
On the face of it, it shouldn't be too hard to create revolutionary software for CDTV. However, as often happens in such cases, the programmers spent too much time trying to dazzle us with the capabilities of CD and not enough time actually creating useable software. This has led to a paucity of decent software, which in turn has led to disappointing sales figures and 'repositioning' of the machine.

To date Commodore has sold about 30,000 CDTV machines, a figure that is far short of the hundreds of thousands the company boasted it could shift at the machine's launch. In fact, at its current price (about £399 with loads of software) it represents good value for money for the first time in its history. This is good news for Commodore which was attempting to clean out all stocks of CDTV before it launched the new Amiga CD console.

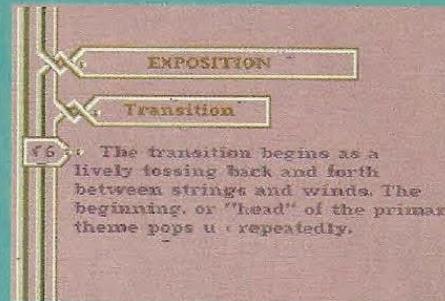
There are any number of reasons why CDTV

SORTING THROUGH THE STANDARDS

Audio CD: standard audio CDs can be played on a CDTV machine. Music CDs are simply placed in the standard cartridge of the CDTV. The machine then displays a graphical interface resembling the LEDs on the front of a CD player. Although CDTVs can play standard CDs using all the tricks of a standard audio player, the sound reproduction is not the best – using a separate amplifier is an excellent idea.



CDTV can cope quite happily with the demands of standard, audio CDs by using this screen.

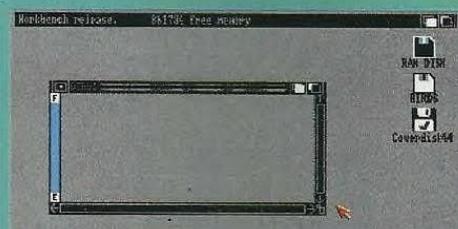


And using specialised software you can even muck around with your audio CDs.

CD+G: these are audio CDs with an added data track containing graphical information. This graphical data is designed to tie

in with the format of the music. So if the CD is classical music you're likely to get lots of soothing 17th, 18th and 19th century paintings. This format hasn't really taken off and isn't likely to until someone starts selling CD-based machines in much larger numbers. As it is, the graphics don't look too brilliant.

CS-ISO 9660: this is the industry standard for CD-ROMs. All CD players should include the ability to read ISO (International Standards Organisation) 9660 and CDTV is no exception. ISO 9660 actually governs the way in which data is stored on compact discs worldwide (among other things, it defines the checksums and the fact that filenames can have up to 31 characters).



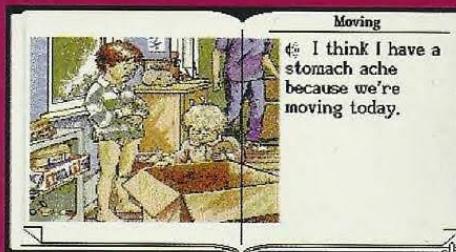
Using a CD-ROM drive (the A570 to be exact) with the Amiga couldn't be much easier.

CD-ROM XA: or eXtended Architecture. This is a bridge technology designed to provide CD-ROM with three new sound facilities: CD-Digital audio, FM quality and Speech. The rumoured Commodore CDTV2, said to be based around the A1200 AA chip set, should include CD-XA.

CDTV: combination of high-resolution graphics with high-quality sound all of which is accessed and controlled by an Amiga 500. The principal difference between this format and the others is that it is far more interactive.



Definitely American story about the lass Heather trying to succeed in a bizarre baseball variant. Lots of success-ethic underlying this one: a little bit of indoctrination into the American dream.



However, it does show that CD-based software can make a hell of a difference to the learning process. Not only can you click on the pictures to gain more information, the text also reads itself to your child!



didn't do as well as everyone wanted it to; the software wasn't much cop, the Amiga hardware was lacking, the user interface was unreliable and it was too expensive, take your pick. However, with the launch of the AA chipset machines, it didn't come as any great surprise to discover that Commodore has a new CD-based machine waiting in the wings.

As this feature is written, we are still attempting to wade through the rumours regarding the arrival of Commodore's newest CD incarnation. Thus far we are aware that it is based on the AA (or AGA) chipset that is featured in the A1200 and the A4000s (the 30 and the 40). We don't think that it will be called CDTV2 due to the lack of take-up of the original machine.

So by the time you read this Commodore should have the Amiga CD console machine in the shops. The company has revealed that it has learnt some valuable lessons from the original CDTV. So it has prepared a totally new development, not sim-

ply an upgrade to the old CD system.

Although those software and hardware developers that normally work with the Amiga and the CDTV are remaining tight-lipped about what exactly is in the new machine, certain information has emerged. The most important of which is that the heart of the machine will be an A1200. When compared to the CDTV's A500 guts, this is a major step forward.

One of the greatest criticisms of CDTV is that you can't upgrade its 2Mb of memory. The new machine is likely to have two megabytes of RAM onboard, sufficient for most applications. We also assume that this upgradability will extend far beyond 2Mb.

Despite the level of criticism levelled at the remote control for CDTV, its successor will undoubtedly be controlled in the same manner. Commodore is keen to sell these machines as new.

Continued over

CDTV ADD-ONS

CDPD 2 Contents:

Fish Disks 651 to 760 - From the Fred Fish Public Domain Library.

Scope Disks 1 to 220 - From the Scope Amiga PD Library

AB-2D PD - The contents of the NASA Amiga Archives, containing thousands of Public Domain files.

One of the ideal tasks for CD is to carry vast amounts of data. PD discs, such as this one, contain entire back catalogues.

There are now quite a few add-ons available for CDTV. Once Commodore realised that the keyboardless machine wasn't such a brilliant idea, it released a range of peripherals to make it a more attractive proposition. These include:

KEYBOARD: this enables you to carry out all those standard computer jobs that are impossible with a remote control.

EXTERNAL FLOPPY DISK: this enables you to extract information from disks such as the Fred Fish PD compilation. You can then save this data in a floppy disk format.

MOUSE: anyone who has tried playing the CDTV version of Lemmings soon finds out that the direction arrows fitted to the CDTV remote control are useless for fine control. The mouse plugs in the back and gives you more control.

BRICK-ETTE: enables you to use any wired Amiga compatible joystick, mouse or

trackball. This means that you can make use of your favourite mouse, and play games with the best joysticks available to the Amiga.

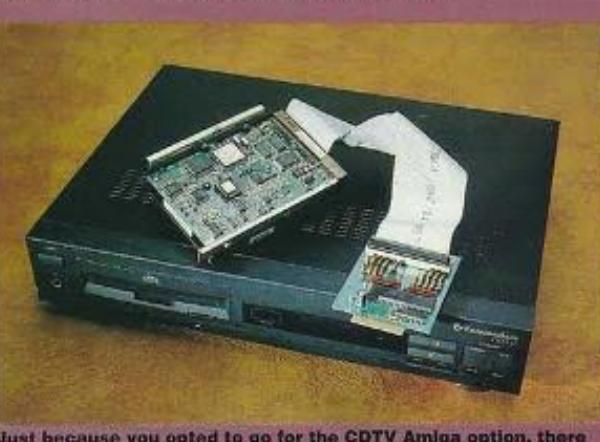
MONITOR: this is just a bog-standard Commodore 1084S monitor, but in black.

EXTERNAL HARD DRIVE: this enables you to save data as rapidly as you load it. Comes with 65Mb of storage space.

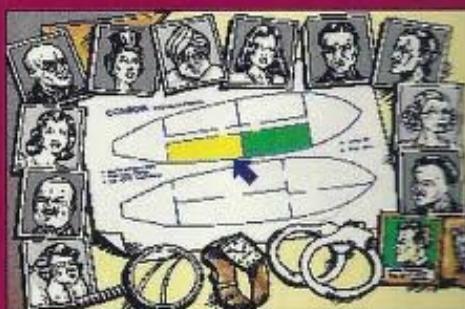
SCSI CONTROLLER: this enables you to add scanners, laser printers and even SCSI-compatible hard disks to your CDTV set-up.

RAM UPGRADE: boosts the chip RAM of your CDTV by 1Mb to 2Mb. Further increases in memory are pointless - there aren't many CDTV programs that need and/or use more than 2Mb of RAM.

INTERNAL GENLOCK: enables you to make use of video for titling and so on. All of these items are available from Indi Direct Mail Tel: 0543 419999.



Just because you opted to go for the CDTV Amiga option, there is no reason why you shouldn't have peripherals.



Although CD software has generally not lived up to expectations, there have been a few notable exceptions: games such as *The Case of the Cautious Condor* (79 per cent, AF39), which is pictured above, have proved the potential of CD.

Right now we are having to make do, for the most part, with simple ports from floppy to CD with no vast improvements in gameplay or looks. The fact that compact discs have 100s of Mb of storage space means that programmers can pack more sound, greatly improved graphics, and (we hope) can indulge themselves in more plot and more gameplay. All we are really waiting for now is a cheaper form of CD-mastering combined with more CD owners.

consumer durables, close family to the VCRs and televisions of this world. If Commodore is to do that then the console can't look like a computer and that means that it can't have a keyboard.

It is unlikely, however, that Commodore's marketing will pretend that you can't add a keyboard to its very latest CD incarnation, though it may sell a

keyboard, mouse, second drive combination in an add-on pack.

As always, the price will be crucial. The £599 asking price for the original CDTV was way over the odds and it soon transpired that no-one was willing to shell out that amount of money on a new, unproven concept. It's far more likely that the new

machine will weigh in at £499, though a £399 or less price tag would make it highly desirable.

Software support for the new machine will no doubt be improved by the development of a CD-ROM drive for the A1200. This would undoubtedly increase the interest in Amiga CD among the third-party developers who are looking for a market with a number of machines already in place. This in turn will increase the quantity and quality of CD-based software for your machine.

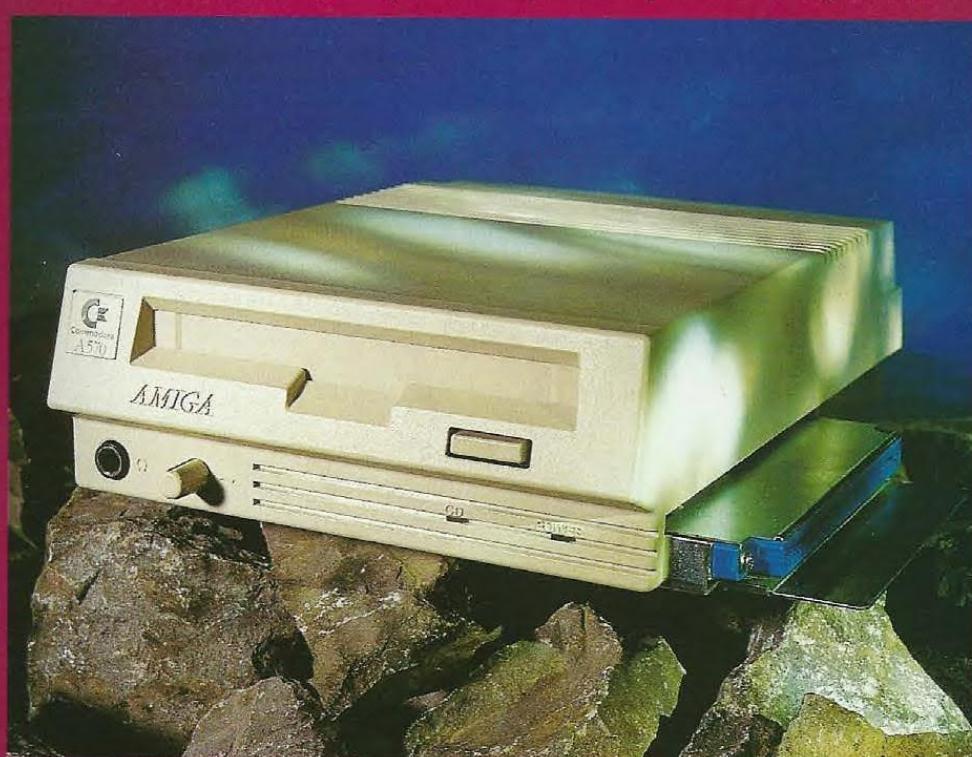
The A570

As the cassette gave way to the floppy disk and the floppy disk gave way to the hard disk, so the hard drive is slowly giving way to the CD-ROM drive.

The A570 CD-ROM drive which came out at the end of 1991 is designed to be used only with an A500 and A500Plus. It plugs into the expansion port in exactly the same way as a hard drive does and enables you to access CDTV discs, CD+G discs and audio CDs. Of these, the CDTV discs will be of the most interest because they were designed to be used specifically with an Amiga.

The device looks like an enlarged floppy drive. On the front are two knobs, one for ejecting CDs, the other a volume control for the headphone jack. At the rear of the unit are two phono jacks to connect it to a hi-fi, and a SCSI socket for chaining devices. The A570 is the same length as a floppy drive and sits next to the A500 drawing all its power from the Amiga, rather than an extra power-lead.

Once the unit is plugged in, it hijacks the standard boot-up sequence and displays the CDTV logo instead. This means that it is ready to receive a CD. These are inserted into a special cartridge of the same dimensions as an audio CD case and this is then pushed into the unit. If the disc being used is a CDTV CD then it will autoboot. If the disc is audio



The A570 drive enables A500 and A500 Plus owners to lock into the world of CD. But because it makes use of the A500's expansion slot, it can't be used with the A600 or A1200. So hurry up Commodore!

IS THERE A FUTURE FOR FLOPPIES?

Hold on a second though, everyone's rushing headlong into a brave new CD-based future without a single glance back at the faithful old floppy disk. Is the floppy really as prehistoric as we're led to believe? We got in touch with one of this country's foremost programmers, the man responsible for *Elite* and *Elite 2*, David Braben.

We asked David how he managed to fit his games on to so little disk space (*Elite 2* will be on just one disk), when other (primarily American) programmers use as many as 12 for their games. He told us that it is often the graphical information that takes up the space:

"Look at how the game is broken up by the programmer, often the actual game code is only 50K or 60K long," he said.

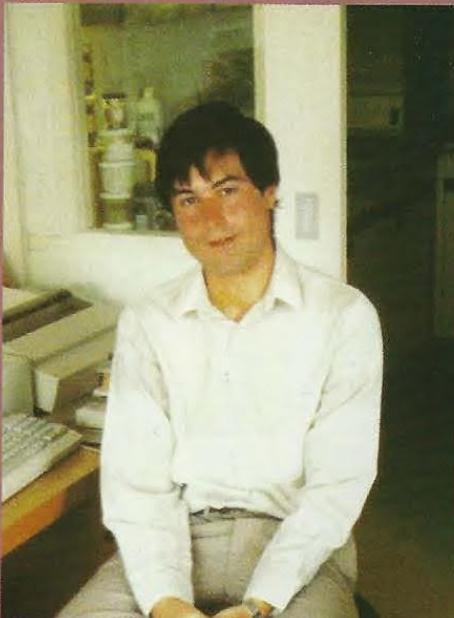
"If you look at something like *Wing Commander*, all of the images of the ships are pictures, not bitmaps. The reason the images look quite jerky is because they use eight different views of the ship. Each of these views has to be rendered at about 20 different sizes, all of which takes up a lot of disk space."

He thinks that this emphasis on large graphics detracted from games such as *Street Fighter II*.

"If you look at the sprite animations, particularly when a character dies, they ping between movements; it's obvious

that the sprites took up a lot of space."

David feels that certain styles of game would work well on CD, particularly those utilising full motion video (FMV) or draw-



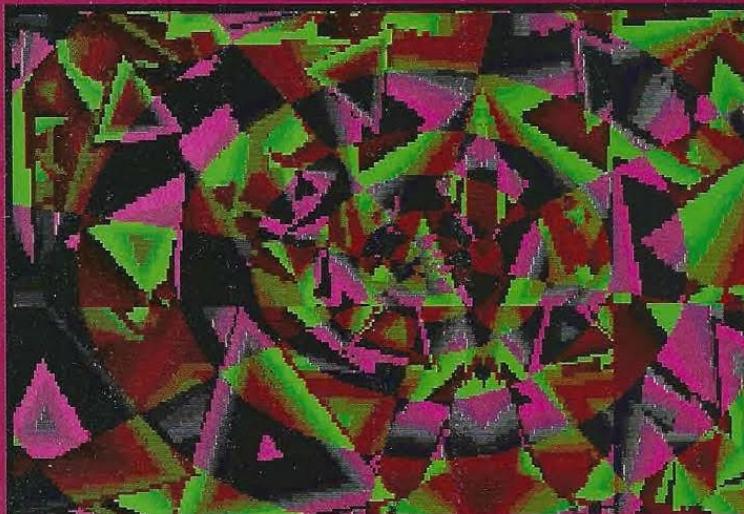
David Braben, the man who designed *Elite*, thinks that CD has great potential for games.

ing on photo information. He also told us that he'd be interested in using the CD format, partly because it is cheaper to produce a game on CD than on floppy disk, but also because, used properly, some amazing effects can be created.

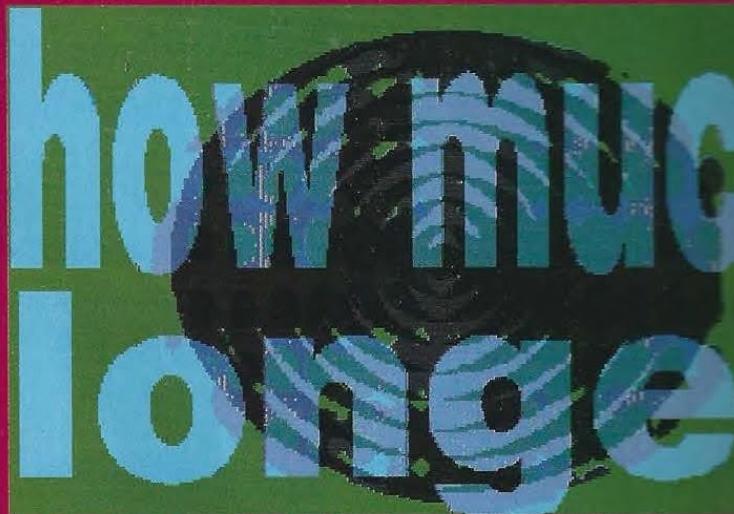
So, even the top programmers are showing their colours. CD is on its way in, and we can expect to see the death of the floppy disk format as the primary data carrier in the next two or three years.



***Streetfighter II*: the graphics were unnecessarily large for the floppy disk format says Braben.**



As soon as the first real 'economy' price read/writable set-up becomes available to the average Amiga user, we can expect some stunning graphics and sound. These won't just appear in commercial programs and games either.



You will also see them in the form of demos such as the ones pictured here. Coding for CD is different to standard floppy coding, it is actually a great deal less difficult and gives programmers greater scope.

CARING FOR CDs

What not to subject your CDs to and how to improve their life expectancy...

When CDs first burst on to the scene, they were roundly applauded as being virtually indestructible. Sadly, it soon transpired that CDs weren't indestructible, but were vulnerable to just as much blight and decay as floppy disks and gramophone records.

CDs store data in a series of microscopic bumps (called lands) and pits. The lands reflect the light from the laser that acts as the read-head (providing a binary digital 1 or 'on'). The pits capture and scatter the light (providing a binary digital 0 or 'off'). The last thing you want is for the pits and lands to be clogged with gunk - dust, smoke particles and so on. With this in mind, the actual surface of the disc is plastic coated - the laser can still read through it but not write to it (hence read-only) - even so it's wise to only handle a CD by its edges.

If a CD does get dirty use some warm water and a cloth to wipe it clean. Do not use a strong detergent or bleach because this will erode the plastic coating and render the disc completely useless. Similarly, don't use boiling water or this will have the same effect.

Avoid exposing the CD to too much heat because this is liable to warp it. Fortunately the CD cannot be affected by magnetism, so unlike floppy disks, it's perfectly all right to leave them on top of speakers or televisions. You should avoid



Discs galore. Before too long, the CD will be the primary data storage media.

doing anything that scores the surface of the CD as this leads to disc-rot. Basically, once air starts getting at the surface of the disk it will slowly dissolve the tiny lands making the disc completely useless.

If a CD does get grimy then you should clean it before you insert it into your CDTV or A570. The laser head that reads the data from the CD is just as susceptible to grime and dirt as the CD itself. This dirt is quite easily transferred from CD to optical read head which is a lot harder to clean. To stop stray dust and dirt getting into the machine you shouldn't leave a cartridge half in and half out of the machine because this leaves the flap open, thus making it easier for muck to enter the case.

As with all forms of technology, it's a bad idea to allow too much smoke near CD-ROM drives and CDs because the tar in the smoke sticks to the surfaces inside the drive and disc. Over a long period can build up to disruptive amounts. If too much tar gets on to the CD then this will obscure the tiny pits and lands in its surface that make up the data.

Avoid jarring the CDTV or A570 because this might knock the read head out of alignment, causing it to read disks incorrectly, if at all. This is especially dangerous if the unit is actually operating at the time, because then the read head will be in transit over the surface of the disk and not at rest in its slot.

then a graphical front-end akin to a normal CD player will appear and the disk can be played back.

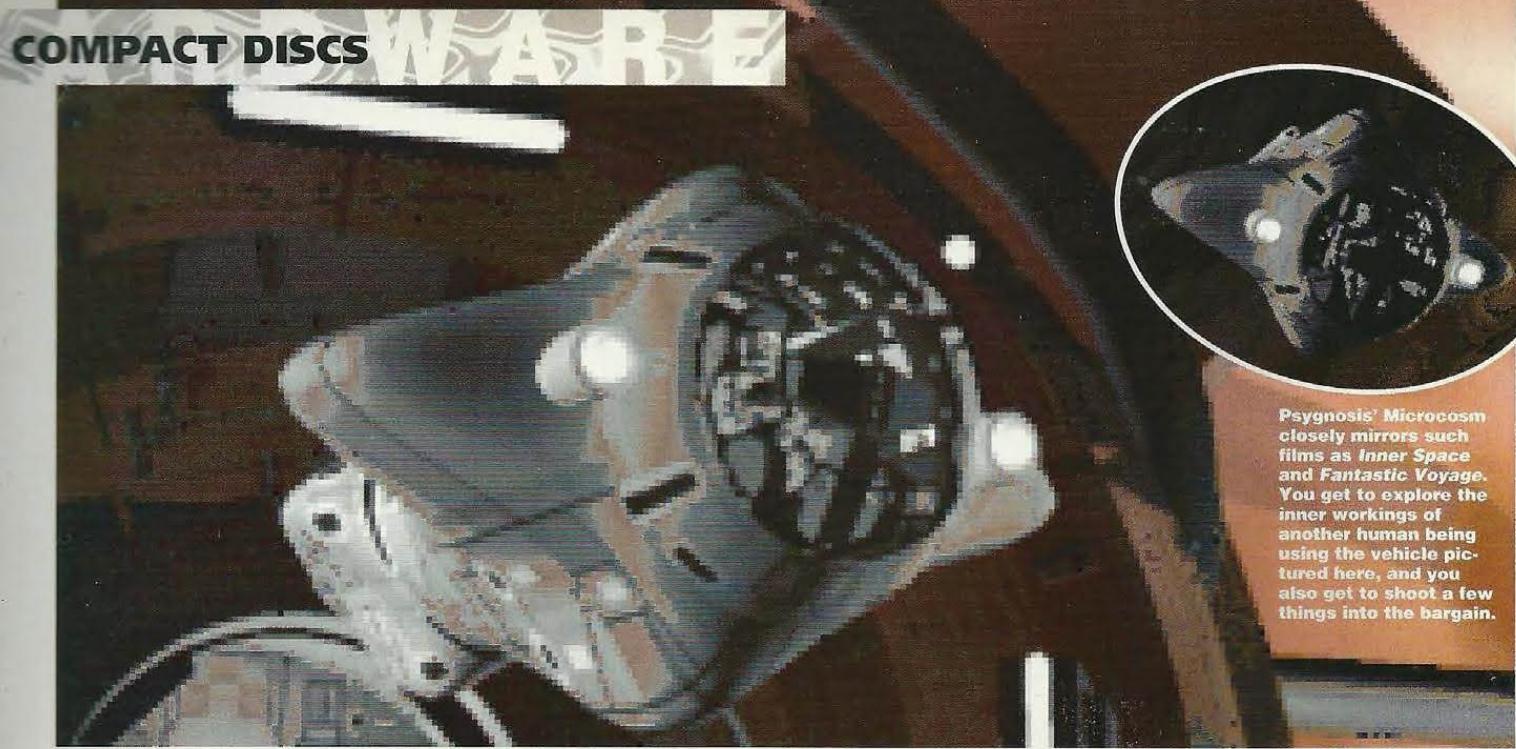
The principal strength of a CD drive is that it gives you quick and easy access to massive amounts of data. One CD can hold 650Mb of data, which is the equivalent of 812 floppy disks. Even the LucasArts teams responsible for the *Monkey Island* games would have problems filling up that amount of space with one game. The main weakness of the system is that at present Amiga CD-ROM drives can't record data. However, by using an A570 in combination with a hard or floppy disk drive, you can transfer data.

So why would you want to access CDs on your A500? Well, this is the way that computing is going and you may as well be ahead of the pack. CD programs are unlike anything you'll have seen before, because they have been designed to utilise enormous amounts of graphical and audio data. Rather than using computer generated sounds, CDTV programs use recorded speech and music played back at the standard CD rate of 44.1KHz.

The range of software available on CD is growing all the time. Titles such as *Dr Wellman's Medical CD*, *Fractal Universe* and *CD Remix* have been around for a while and provide a good idea of just what's possible on the system. Lately, programs such as the *Global Chaos CD* (a dance music and graphics CD) and *Trivial Pursuit* have proved just how much more can be extracted from the machine.

The A570 is a powerful add-on to an A500 because it enables you to have the best of both worlds, rather than being stuck with an over-expensive, over-glorified CD drive you get a decent Amiga with keyboard. You're not just tied to the use of floppy or hard drives any more, but can access the vast amounts of data already available on CD.

It's worth noting that just as the original CDTV was based around A500 technology, the new machine will be based around the AA chip set technology that features so strongly in the A1200 and the A4000s. It seems extremely likely that Commodore will release an A1270 CD-ROM drive, thus enabling owners of the A1200 to use the advanced CD software being developed for the new machine. If this is the case, then the future of Amiga CD looks as bright as it has ever been.



Psynosis' Microcosm closely mirrors such films as *Inner Space* and *Fantastic Voyage*. You get to explore the inner workings of another human being using the vehicle pictured here, and you also get to shoot a few things into the bargain.

THE WAY FORWARD

We have the CD technology, but so far no games have taken full advantage of it. According to Psynosis, its new offering, *Microcosm*, will change all that...

That there capsule contains you. That tunnel is actually a vein. That slime is actually plasma.

14

There's no doubt that CD offers incredible potential as the new storage medium for all forms of software – particularly games. There's equally no doubt that since the launch of CDTV in 1991 that potential hasn't even come close to being fully realised. The software, especially the games, that has been developed (or more often converted from older Amiga-based games) for CD, has been extremely disappointing.

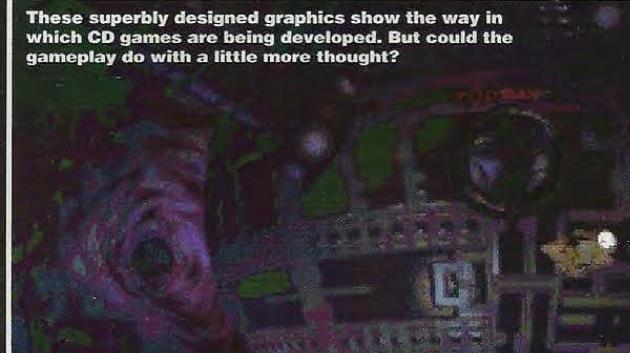
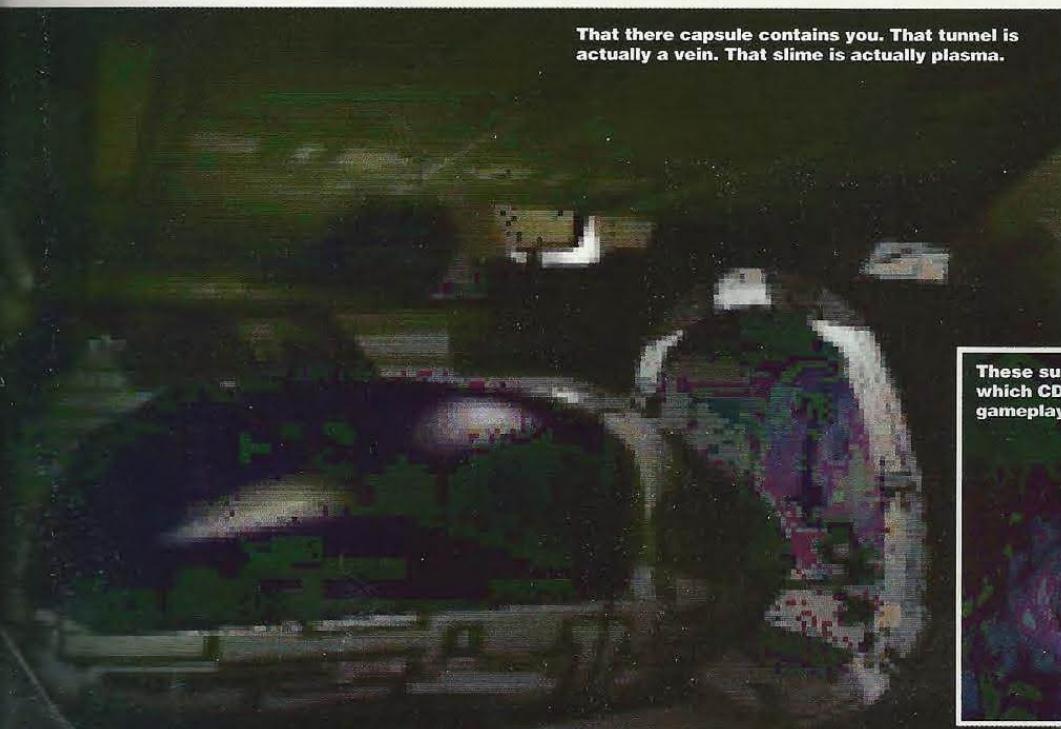
But all of this is about to change. Several of the leading publishers are even now developing games that will take advantage of the huge data storage capabilities of CD. One of the software houses leading the way in CD games development is Psynosis, best known for the excellent *Lemmings* games, who will shortly unveil *Microcosm*.

Microcosm has already been a great success in Japan where it was released in April this year on Fujitsu's new CD-console, the Marty. But according to Mark Blewitt of Psynosis the Amiga CD version will look even better.

The game is due for release in the autumn. But what about the price? According to the game's Producer, Richard Browne: "I would hope that it will be no more than £70, but that decision is out of my hands."

Seventy pounds for a game! Now even on the hugely clunky PC (the machine that needs software to help it scroll games, so the games ship on five, six or ten disks) this is a hell of a lot of money for what could be just a few hours entertainment. So just what are we to expect from this brave new world?

These superbly designed graphics show the way in which CD games are being developed. But could the gameplay do with a little more thought?



COMMODORE AND CD

We all know that CDTV didn't do as well as anyone expected. Commodore expected to sell 80-90,000 machines in the first year of release (1991), and boy did this not happen. As this article is typed, Commodore is sticking to a figure that is 60,000 CDTV's fewer than the initially projected figure. So how did this failure happen?

We spoke to the head of marketing for Commodore's CDTV, Mike Gosheron, about the past and future of Commodore and CD. As you'd expect, Mike doesn't think that CDTV failed, despite just 30,000 machines being sold to date.

"30,000 is a very respectable figure. When we first launched the Amiga we managed 13,000 sales in the first year and 35,000 in the second, so 30,000 is actually a very solid figure. Initially, I think we confused a lot of people, but you have to remember that CDTV was a brand new concept and so it took a while for the public to realise exactly what it was."

But there's no getting away from the fact that sales

Mike Gosheron: head of marketing for CDTV



Well, *Microcosm* is an action shoot-em-up over six levels set inside a human body. The president of the fictitious Cybertech, Tiron Korsby, has been injected with a microscopic device by the rival corporation, Axiom. You must enter the body and remove the resultant infections before Axiom can gain control.

There are four different styles of shoot-em-up over the six levels, some viewed from a first-person perspective others from a third-person angle. Throughout the game, animations are used to relay the storyline in a film-like fashion. The excellent graphics were developed on high-power Silicon Graphics workstations and all levels feature fully-rendered animations that Psygnosis claims are interactive but, from what we've seen of the Marty-based demo, merely involve you choosing which route to take. The soundtrack was and produced by 70s pomp-rocker, Rick Wakeman.

But what of Commodore's involvement with the project? We already know that Commodore was co-funding the game, so surely this means that we could expect to see *Microcosm* on CDTV and even the A570. Apparently not, Psygnosis publicity man, Mark Blewitt told us: "The Commodore conversion will be CDTV2 compatible only, there seems very little point in developing for the already outdated first version (of CDTV)." CDTV2?

It appears that Psygnosis knows more about the state of play in Commodore CD-dom than anyone else. Sadly though, Mark refused to be drawn any further on the subject, and since Psygnosis has recently been bought by Japanese electronics giants, Sony, we imagine that Mark will stay quiet for a

were well short of what was expected. 30,000 is also not a terribly impressive figure, given the great success of the Amiga itself. And there lies another part of the problem, Commodore avoided using the enormously successful 'Amiga' name when it first marketed CDTV (which, after all is merely a glorified A500).

Another major problem was the £599 price-tag. So, does Mike think that CDTV was released at the wrong price?

"It was all down to how we positioned it. Because it was at the leading edge we thought we could sell it at £599; you simply don't release something at a price you don't think you can sell it for. Once we got the message across [about what CDTV actually is] we thought that the price point was very justified."

Mike says he sees Commodore being at the forefront of this new media, and (perhaps surprisingly), he still sees a lot of life in the old CDTV system. Given the fact that CDTV hasn't yet done very well, we wondered whether Commodore had got its fingers burnt?

while. What we do know however, is that Psygnosis is also developing several other CD titles including *Dracula*, based on the Francis Ford Coppola movie, *Last Action Hero* based on Arnie's new flick, and *Journey To The Centre Of The Earth* based on a new TV series.

"As far as CDTV2 conversions of these titles is concerned we shall have to wait and see the success of the machine before fully committing ourselves to them" said Mark Blewitt.

"Absolutely not, we're completely committed to going forward in the interactive CD market. We're always developing, both hardware and software." Does this mean that we're going to see the long-awaited Amiga CD console soon?

"We're committed to going forward" repeats Mike in one of those diplomatic tones that has an implied: "I bloody hope so!" in it.

All right, so given the natural progression of Commodore products, it's a safe bet that there will be an AA chip set-based CDTV at some point. We asked Mike whether this would be compatible with any of the other CD standards such as CD-XA or CDTV itself or the new 3DO machines, but he wouldn't be drawn.

"We simply want to make sure that we have the best products possible. There will be a time when there are more CD drives than floppy drives and we intend to be at the forefront of that change." Similarly Mike wouldn't give us any idea of a price for the Amiga CD console.

"When we launched the A4000 a couple of months ago we didn't set the price until the day before the launch. So at this stage we haven't set a price point." A price for what Mike? Certainly not for a non-existent machine.

So, the future looks as if it will contain a link between Commodore and CD. The chances are that CBM will be aiming at the business community as well as the rest of us, but one thing is assured, the Amiga architecture will be there too.

Mmmmm right. But what of the Amiga itself? It is undoubtedly true that the A1200 is wonderfully armed to take up the CD challenge, all we have to do is wait for Commodore to realise this and develop a CD-ROM drive for the machine. It is also, frankly, absurd that the A4000 still doesn't have a CD-ROM drive. As for the A570 drive, we can only hope that the software houses remain true to their words, and do produce more and better CDware.

Microcosm is a step, but only a step, forward. Oh, and the gameplay needs improving too!

MICROCOSM FACTS

Microcosm was developed by a team of 30 people including animators working on Silicon Graphics hardware and Amigas, programmers, artists, research programmers, sound technicians, props builders, costume designers, managers, co-ordinators and designers.

The *Microcosm* project took about eight months to complete. That works out at almost 21 man years of development.

About 44,000 frames of animation were used to produce *Microcosm*, many were ditched along the way and don't appear in the finished game, but that still works out at 1,622,016,000 pixels throughout the game.

The CDTV may look more like a video recorder, but it's actually just an Amiga 500 in a silly box with a CD drive added. And it's the CD drive that's the important bit, for all of us...

Back in 1983, pan-global electronics giant Philips launched a new range of hi-fi equipment and a new way of listening to music, called compact disc or just CD for short. At the time it seemed strange that music could be played by a laser bouncing off the surface of a shiny five-inch disc, but now it's familiar to us all and has become the leading format for music sales. Vinyl LPs have all but disappeared, tape cassettes are fading in popularity.

So it's safe to assume you know what a CD is. Nine years on, everybody does. What you might not, perhaps, realise is that the music on a CD is stored digitally, in exactly the same binary form as computer data. Which means, if you think about it, that they could put computer software on CDs instead of on floppy disks.

Indeed, there's a number of good reasons why they should put software on CDs rather than floppy disks. CDs are less easily damaged – spill a cup of coffee on a CD and you can just wipe it off, send a CD through the post and it's much more likely to arrive in one piece. The magnetic material that stores data on a floppy is exactly like the stuff used on tape cassettes, so it wears out after a while – luckily, CDs don't.

But there's more to it than that. Another advantage of the CD is that it costs round about the same to make as a floppy disk, but it can hold many times as much data. An Amiga floppy holds 880K – less



CD? CDTV? CD-ROM? A570? What do these strange and mysterious letters and numbers signify? Well, actually just the future of the Amiga, that's what. Damien Noonan explains why software stored on a compact disc will make the world a better place...

THE STRANGE TALE OF THE AMIGA AND THE CD PLAYER

than 1Mb – of data, whereas a CD can hold a massive 550Mb of data. That's 640 floppy disks' worth.

So why can't you buy software for your Amiga on CD? Well, the fact of the matter is, you can. And have been able to for more than a year now. The Amiga CDTV (it actually stands for Commodore Dynamic Total Vision) first went on sale in early 1991, without the 'Amiga' bit on its name. CDTV was – and, indeed, still is – basically an Amiga 500 with 1Mb of RAM, with a CD drive instead of a floppy disk drive. Quite a prospect.

But there was one problem. An A500 with 1Mb and a CD drive might have sold like hot cakes at

£499; the improved software on CD would have made it worth the extra £100. But CDTV cost £599 and, what's more, it didn't look at all like an Amiga and it didn't have a keyboard, a mouse or a joystick – it was operated with an infra-red remote control.

Ancient history

Commodore had decided that the CDTV was their big chance to bring computer power into the home without people knowing it was a computer, so they dressed the Amiga CDTV up to look like a video recorder and claimed it was some kind of 'interactive television'. Which, in a sense, the Amiga is.

Incidentally, Philips are now trying to do exactly the same with their CDTV-like CD-i system.

That would have been all well and good, except that the public didn't take to it. One problem was that the software – and around 50 specially-written CDTV discs were on sale a couple of months after the machine's release – was disappointing. A few games ported over from the Amiga (which made no use of all the extra disc space), a bunch of clumsy reference works (encyclopaedias, cookery books and dictionaries) and the odd educational title was about your lot.

Continued over page



CDTV has never really taken off, despite the fact that the price has been reduced twice, first to £499 and then to £399, and there's still barely any decent software for it. Yet Commodore seemed to stick behind the concept and probably its most eagerly-awaited release ever was an add-on drive for the A500 that would enable Amiga owners to play

CDTV discs. The A570 CD-ROM drive was finally released this June, many months after it was expected. CD-ROM, incidentally, stands for Compact Disc Read-Only Memory: it's memory because data is stored on the CD and it's read-only because, unlike a floppy disk, you can't write new data to it.

The Case of the Cautious Condor is, to date, the only CD-only game to make an impact on Amiga CDTV. Screen after screen of cartoon graphics almost make up for minimal gameplay.

Trouble with the A570 is that it needs an A500 with 1Mb of chip RAM to work. As this means only A500 Pluses and converted recent A500s, it limited the market drastically. On top of all that, it costs an astonishing £349.

Would we recommend that you buy an A570 or a CDTV? Frankly, no. If you have an A500 and £400 to spend, you're better off upgrading to an A1200 than getting an A570. The CDTV is now sold at £499 in a pack called the Home Multimedia Pack which includes a keyboard and a floppy disk drive, so you can boot it and use it as an Amiga. But the CDTV needs to be updated before it becomes a real option: a newer version of Workbench (it currently has 1.3) and the new AA chip set would be essential in a CDTV2. It may yet happen.

So, if we're dismissing the CDTV and the A570, how is it that we still believe that CD is the future for the Amiga? Well, it's like this...

CD is the future

You have to look at Commodore's plans within the context of the games industry generally, and this means it's games that lead the way. Over the last couple of years, there's been a massive explosion in sales of Sega and Nintendo games consoles, while all computers except the Amiga have faded. As a result, more and more games-publishing companies (software houses) have started producing games on cartridge for the games consoles.

What's the best CD-based software to date...

Before too long, all software will be released on CD, although that time is more than a year away. For a while, during the changeover period from floppy to CD, new games will come out on floppy and CD at

entertainment system' that Commodore once believed CDTV to be. On top of this, many CD titles are just Amiga ones modified: the games, in particular, tend to be old Amiga games with slight alterations. One

same as the Amiga disk version. The other is *Sim City* (Infogrames £29.99), which has a number of changes made to the actual game and also features a full hi-fi soundtrack of music recorded in the studio by



Lemmings - a top-class game on any format though control with infra-red remote is tricky.

the same time - a concept called 'dual formatting'. As CD slowly catches on, more and more 'enhanced' and CD-only titles will be released, pointing out the disadvantages of the floppy, in very much the same way that music CDs often featured bonus tracks as an incentive to buyers to switch from other formats.

For the time being, however, there's a severely limited range of stuff available on CD and, what's worse, it's all been specifically developed with CDTV in mind, which means it can tend towards the worthy aspirations of the living-room 'home

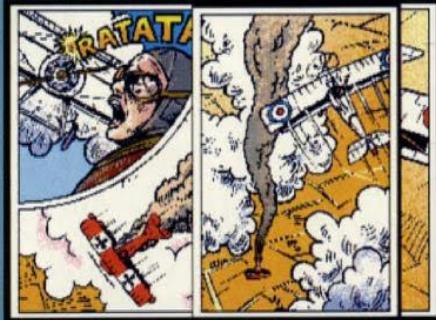


Sim City - strategy with a comic appeal, and one of the most intelligent games ever created.

of the most popular enhancements is the addition of a hi-fi soundtrack.

That's because the A570 and the CDTV can both play normal hi-fi CDs as well as Amiga CDs. One interesting thing is that the two can be combined: a hi-fi stereo soundtrack can be incorporated on to the CD, and can be played in the background while a game is running. Very tasty.

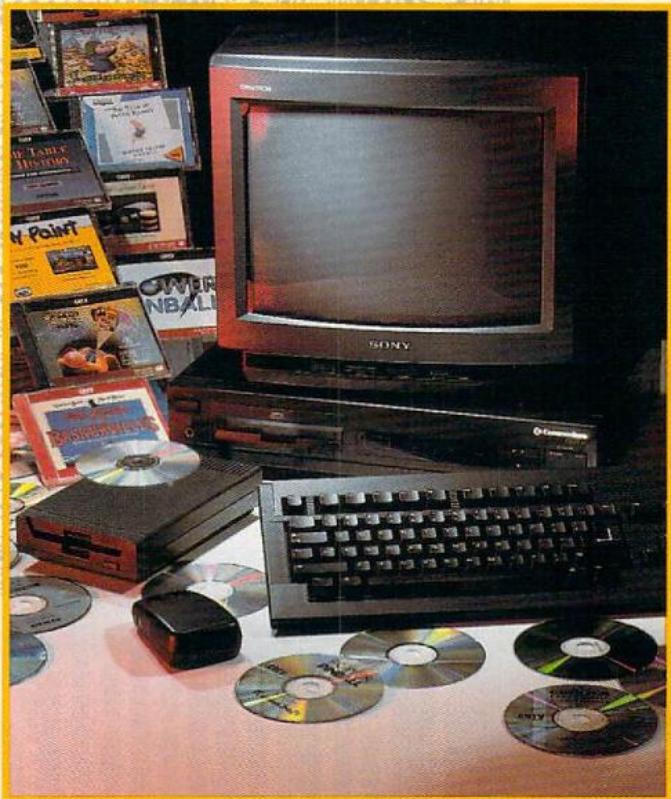
Anyway, let's take a look at the best of the CD-based software released to date. On the games side, the best so far are a couple of Amiga games. One is *Lemmings* (Psygnosis £34.99), which is exactly the



Cautious Condor - immense quantities of classy graphics which only CD can provide space for.

professional musicians. It's better than the Amiga version.

Recent news is that the 1993 updated version of the hugely popular footy game *Sensible Soccer* is also about to be released on CD. More interesting still is the news that its publishers, Renegade, have committed themselves to a £19.99 price for CD releases. This first release is an experiment and at this early stage they don't expect it to sell in large quantities, but it's the first evidence of a publisher working towards the £20 standard price that many people believe CD will make possible.



With the release of new CD-ROM-oriented peripherals, Commodore will enable both Amiga 500 and CDTV owners to perform a little "quick-change" artistry on their equipment. The A570 CDTV Adapter (right) enables you to add CDTV/CD-ROM capability to your A500, while new CDTV peripherals (above) can turn your CDTV into a fully functional Amiga 500.

By Lou Wallace and Doug Barney

O Say

While CDTV may not yet be universally popular, Commodore is waving the CD-ROM flag in front of A500 owners—who might now just sit up and take notice. In the past, although Amiga users may have looked upon CDTV as an intriguing multimedia CD-ROM system, most of them probably already had one or more Amigas and didn't need to buy another computer.

Recognizing this fact, **Commodore** has come up with what appears to be an economical solution in the form of its new **A570 CDTV Adapter**, which will enable A500 owners to add CDTV compatibility to their existing machines by plugging the A570 into the A500's expansion port.

On the other side of the CD-ROM battle lines, the company is also releasing an assortment of Amiga peripherals—keyboard, floppy-disk drive, mouse, plus some extras—to enable CDTV owners to use the player as an Amiga 500 (see “‘Computing’ With CDTV” further on in this article for more on that development).

The A570 is in essence an A500 expansion chassis. And while its main function is to add a CDTV-compatible CD-ROM drive to the A500, it can also be used for other types of upgrades: as a RAM expander, as a SCSI hard-disk adapter, and as a standard audio CD player.

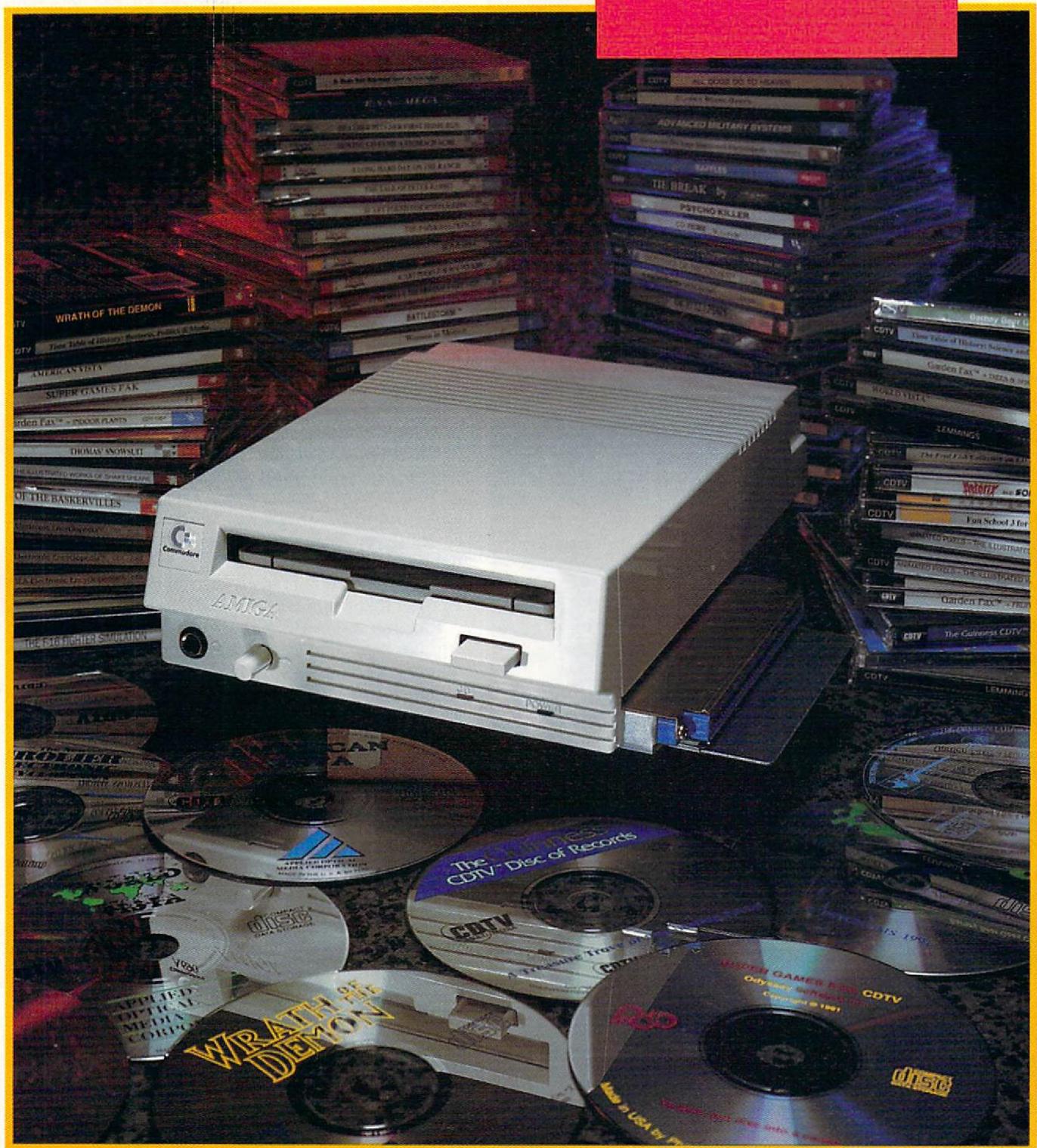
To use the A570, you need an A500 with at least one megabyte of chip RAM. While you may be able to use some CDTV software on a system equipped with less RAM, the number of titles that will run properly with 512K will be small. All CDTVs have exactly 1MB of RAM, all chip, and most CDTV developers usually take full advantage of it.

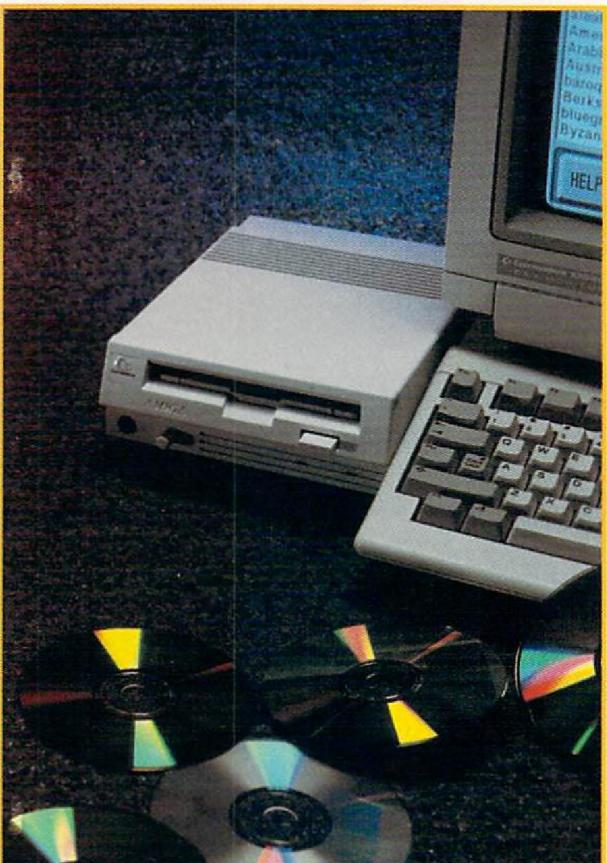
Installing the A570 is easy. With the power off on all devices, simply remove the cover of the expansion port on the left side of your A500 and gently slide the A570 into place. Connect your Amiga audio cables from the CPU into the audio-in jacks of the A570, then run new audio cables from the A570 to your audio system, and reconnect your power cords.

To run CDTV software, merely insert a CDTV CD-ROM disc into the supplied disc caddy (a small case used to hold the disc while inside the player) and ►

EDITOR'S NOTE: Just as this issue was about to go to press, AmigaWorld learned that Commodore officials were expressing some doubts about the scheduled release of the A570 this summer and about its suggested retail price of \$499.99. AW will bring you further details in the August issue.

Can You CD?





The headphone jack and volume control on the A570's front panel let you listen to audio CDs while working at your computer.



The route to A570 expansion is through the rear panel to the left of the audio jacks.

slide the caddy into the A570. Depending on how the software was written, you then either reboot your machine or start the program from Workbench by clicking on its icon. (While most current CDTV titles must be booted by a soft reset, many of the newer titles under development will allow program startup via an icon.)

The A570 does not contain all the standard operational devices of a CDTV. For example, you do not get an infrared remote controller with it. Nor is there any option for the credit-card-like RAM cards (PIM cards) you can install inside a CDTV player. In most cases, however, you don't need these. The remote control is made unnecessary because all A500 owners have both a mouse and a keyboard that emulate all the CDTV remote functions and, in many cases, work better than the standard remote control. Those applications that need a PIM card when used with CDTV can use the standard floppy drive for storing information.

Because the A570 is designed to fully implement a CDTV (in terms of its software operation), special care had to be taken to emulate all aspects of the CDTV operation. This goes well beyond such considerations as the controller and PIM cards, as it includes software compatibility for such CDTV-specific features as CDXL. Because CDXL is the software magic that allows sophisticated CDTV applications to play animations and digitized video directly from CD-ROM, this was an important developmental factor and represents no mean achievement. (For more on CDXL, see the sidebar "CDXL: Technology on the Brink.")

For software that is meant to be accessed via Workbench (or the Shell/CLI), the A570 CD-ROM has the drive definition of CD0:. You can copy files from CD0: to either floppies or hard disks (since the CD is a read-only device, you cannot write data to it). Because the A570 is so easily accessed as a standard drive, you can look forward to using a variety of CD-ROM discs that contain very large (more than 600MB!) amounts of data. There are already CD-ROM sources for the Fred Fish disk collection of freely distributable software, and I expect many more resource CDs to become available.

Imagine the possibilities those 600+ megabytes of storage represent for clip art, fonts, 24-bit texture maps, and 3-D models for animators. As an added bonus, you can use a variety of existing CD-ROMs that are available to MS-DOS and Mac users. (See "Plunging Into CD-ROM," Mar. '92, p. 49, for a survey of CD-ROM titles and sources available to Amiga users.)

EXPANSION POSSIBILITIES—AND CAVEATS

As mentioned previously, the A570 offers expansion possibilities beyond just the built-in CD-ROM drive. The prototype I examined allowed for 2MB of RAM to be added within the A570 itself. The A570 also provides for hard-disk expansion. While space within the case is somewhat limited, you can install a small, 2.5-inch hard drive similar to those found in laptop or notebook computers. (I was surprised, however, to discover that the interface is SCSI rather than the expected IDE format used by laptops.)

Like the CDTV player itself, you can use the A570 as a standard audio CD player. And also like that unit, the A570 includes a built-in, software-based graphic audio-control screen. The front panel of the A570 has a headphone jack and a volume control (for use with the headphones), so you can enjoy your favorite music while still

CDTV: Technology on the Brink

WHILE MUCH OF the focus of the CD-ROM wars has been on hardware, the real significance of this technology lies in the applications that it opens up to users. And although there are a great many CDTV titles already shipping, some of these could easily be referred to as "shovelware," a term applied to software that was quickly ported to CDTV.

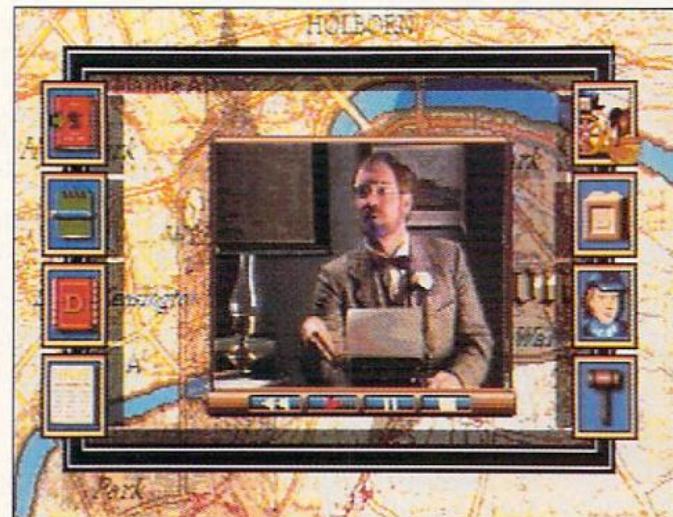
While ported software can be quite enjoyable in its own right, it usually does not take advantage of special CDTV features such as CDXL. (Editor's Note: For a roundup of many of the earlier CDTV titles, see the buyer's guide accompanying "CDTV: Birth of a Notion." Jun. '91, p. 20.)

We are now seeing, however, the arrival of a second generation of titles that do capitalize on the full potential of CDTV. One example is Icom Simulations' *Sherlock Holmes, Consulting Detective* (see illustration). This is a full-blown adventure/detective game that features high-quality digitized video, a fully synced audio track, and an elegant and effective user interface.

As *Sherlock Holmes*, you choose one of three different

cases that are on the disk, and, along with Dr. Watson and the Baker Street boys, you proceed to find the solution to the mystery and bring the perpetrator to justice. You can find clues in the game's "newspaper," in any of the many places you can visit, and from a wide assortment of people or organizations you can choose to interrogate. These discussion sequences are actually digitized video, created with well-decorated sets and real actors, many of whom appear to be extremely good at their trade! The overall effect is excellent.

The ability to play full-motion video (even quarter screen) and sound from a CD-ROM in real time is quite an accomplishment, especially since it is being done on a 1MB Amiga 500 (which is, of course, the power within the CDTV). This success is partially due to the overall graphic power of the Amiga itself, but much of it also stems from the programming genius behind CDXL—the proprietary software used to transfer any kind of data from the CD-ROM into the computer at speeds faster than



Icom's *Sherlock Holmes* is an example of the promising second generation of CDTV titles.

one would expect from the hardware specifications.

The creator of CDXL, as well as a lot of other CDTV code, is Carl Sassenrath, one of the Amiga pioneers and author of the Exec—the heart of multitasking in the Amiga OS.

For developers, using CDXL, as well as other CDTV features, has been made easier through the creation of a new generation of software tools. CBM's CATS (Commodore Applications Technical Support) department, working both internally and with third parties, has developed an entirely new

range of tools to facilitate CDTV application generation. Besides CDXL and the CDTV Toolkit (distributed by CATS), the group has helped to develop a new module for ASDG's Art Department Professional that allows the creation of CDXL sequences from within AD Pro.

Look for some exciting and technologically impressive new CDTV titles to begin appearing over the next several months. This is just the "dawn's early light" of what could be a star-spangled revolution in applications development.

—LW □

making full use of your Amiga. As is the case with CDTV, the A570 also plays CD+G audio discs.

There is one major drawback, however, to using the A570 with the A500. For 500 owners who have already added an external expansion chassis but want the A570's CD-ROM capability, there is no easy solution. The A570 does not offer a pass-through connector, which is not surprising, as Commodore specifically designed the A500 so that only one expansion device could be added to its bus. There is only one remedy for this dilemma: If you want to add the A570, you will have to remove your existing expansion chassis (and hopefully sell it to another A500 owner).

Another possible source of incompatibility may affect users who have added internal accelerators. Com-

modore reports that the A570 should work in such cases, but be aware that some CDTV titles may not support advanced processors such as the 68030 or 68040.

Despite such potential problems, it appears that a workable CD-ROM solution is finally available to the Amiga consumer. Is it worth it? I think the answer is a strong yes. With a planned release price of \$500, the A570 compares fairly well with external CD-ROM drives for the MS-DOS and Mac markets, and it offers the additional option of RAM and hard-disk expansion. More importantly, it will open the floodgates for the type of multimedia applications that require the huge storage that CD-ROM can provide.

—Lou Wallace ▶

'COMPUTING' WITH CDTV

DURING THE FIRST year or so after Commodore began shipping it, the company took great pains to position CDTV as an interactive home-electronics device, not an Amiga computer. The arrival of Philip's CD-I, with no computer capabilities, has helped to change all that. Commodore now proudly extols CDTV's Amiga virtues as an advantage over CD-I. I tend to agree.

Nowhere is this strategy more clear than with the new CDTV/P ("P" for "Professional"), a special version of CDTV that includes a keyboard, infrared mouse, floppy drive, Workbench 1.3, and Gold Disk's Appetizer—a selection of paint, music, and word-processing titles on one disk. The complete package is available now at a special promotional price of \$849.

SETTING UP SHOP

We received the additional items in the form of a Pro Pack upgrade kit (due to retail at \$249.99, but available now at a special promotional price of \$199.99) for our own CDTV unit. The keyboard is identical to the fine unit that comes with the A3000, except that it is jet black (in the CDTV style) and has a different, six-pin plug configuration. (An adapter is in development, but is not yet available commercially.) Like most keyboards, it plugs quite easily into the back of the system. The disk drive, also black, uses a standard floppy connector.

Unfortunately, the drive has no pass-through connector, unacceptably limiting the system to a single floppy. I did, however, scare up a low-profile drive with a pass-through from California Access and quickly set up a dual-floppy system. Activating the infrared mouse, as you might expect, is a breeze. Simply load the batteries and click the On button on the left side.

Setting up the whole system took all of about ten minutes, including the installation of an optional 64K personal memory card. (The 64K Flash Memory Card sells for \$129.99, while a 256K version is available for \$349.99.) I also plugged in a 1084S monitor we had lying around and used it for both RGB output and stereo sound. This is a nice, simple approach, and the system performed quite well.

RUNNING CDTV AS AN A500

Once I had plugged in all the components, I flipped on the power, and up came the familiar CDTV animated logo. That wasn't what I wanted, so I rebooted with Workbench 1.3 (Kickstart is included in ROM as on the A500). The screen turned the familiar basic blue, and Workbench struggled to life. I popped in the Appetizer, went into the music program, and fiddled about. Everything worked fine.

The system comes with 1MB of chip RAM, which was adequate for many of the simpler programs I ran. Because it has no fast RAM, however, some of the games I tried that use fast RAM were a bit flaky. Most, however, worked just fine. I also ran into an unexpected guru when exiting Appetizer, but *AW*'s Lou Wallace, who has a similar setup at home, reports that his system is as stable as they come.

You can also make use of the upgrade kit when you are running CDTV applications. In particular, I found the mouse to be a lot snappier than the CDTV remote's four-arrow cursor system, and, fortunately, many CDTV applications fully support mouse input. Remember, though, that you must keep the mouse in front of the unit in order for the infrared to work properly. When you are operating it as a computer, this is generally where the keyboard sits, which forced me to move the keyboard somewhat off to the left. As an alternative input device, Commodore also supplies an optional trackball for \$129.99.

Reversing the situation, you can also use CDTV features for Amiga applications. For example, CDTV's remote acts like a mouse, allowing you to play some games or run simple applications from your couch. The remote's number pad works for numeric input, but unfortunately has no keyboard for letters.

One small fly in the CDTV/P ointment is that the integration of CDTV and Workbench is not fully complete. For instance, when you run Workbench, CDTV applications post the usual icons, and when you double-click on them, drawers appear. In some cases, however, when you try to open a drawer, the system freezes. As a result, you cannot boot these CDTV applications from Workbench. Of course, since CDTV applications load (and unload) so effortlessly, there is no real reason to launch from Workbench. According to Commodore, however, the company is encouraging developers to support the Amiga operational style in designing future CDTV applications.

WHAT'S THE VERDICT?

Overall, CDTV/P is a bit of a mixed bag. It was a pleasant surprise to find that the remote could act as a mouse and to discover other pluses, such as being able to use the standard floppy connector and having RGB video, serial, and parallel ports. I could not understand, however, why the keyboard connector was non-standard and why it failed to have the standard mouse and joystick ports that would allow many of us with spare parts to upgrade at little or no cost.

Although not as expandable as an A500, you can provide CDTV/P with some added oomph. For instance, it has an expansion slot into which you can put a SCSI interface card (which is presently in development at Commodore), or you can add a hard card with a 2.5-inch hard drive. In addition, to increase your chip RAM to 2MB, you can add DKB's MegAChip 2000/500 (\$299.95). Acceleration products are also in development, including a 68040 plug-in from Progressive Peripherals!

Many common items plug right in with no fuss, such as MIDI keyboards, printers, modems, and genlocks. (Progressive's miniGEN—\$229.95—works fine, while Commodore is offering a special genlock for the unit at \$249.99.)

If you are already considering CDTV, the Professional version or the Pro Pack upgrade kit isn't a bad way to go. You end up with a basic A500 for just a few extra bucks, and you qualify for Commodore's excellent Express warranty service. I would, however, strongly recommend plugging the black floppy drive into another one that has a pass-through connection in order to get two floppies.

—*Doug Barney* ■

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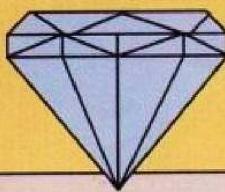
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What is CDTV? Are you confused by all the hype? If you are then why not come in to one of our shops for a full demonstration of this exciting new medium.

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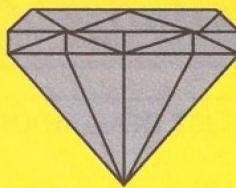
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CAPTAIN DIAMOND'S CDTV PAGE

CDTV



CDTV

Imagine, if you can, the concept of a new, more powerful Amiga...

...With 1Megabyte of memory and a compact disk drive of almost infinite size. A disk so vast, it can store hundreds of millions of digits of data. This data could be speech, animated pictures, digitised stereo sound, computer images or whole encyclopaedias... and more.

Imagine this and you can start to grasp the concept of CDTV.

The integral compact disk drive is the key to the power of CDTV. Its storage capacity is equivalent to around a quarter of a million full pages of text. This, when integrated with the 1Mb of internal RAM, creates a system, which, from a CD disk, can give you access to an unimaginable spectrum of real world images, never seen combined before. These vivid images, with words and sounds, give you a whole new dimension in home education, entertainment & information technology.

Don't forget that CDTV can play, in superb quality, any normal audio music CD. It can also play the new CD+G disks, which give digital sound and on-screen graphics.

On CD Disks now available, there are educational packages, encyclopaedias packed with reference information, stunning games, music systems and many other new and varied subjects including whole world atlases or even the complete works of Shakespeare, each one on CD Disk. CDTV - Nothing less than revolutionary

CDTV STARTER PACK

When you choose your CDTV from DIAMOND, not only do you get our legendary service, but for only an extra £30 you get the CDTV Starter pack to get you exploring your new world - straightaway. This includes a superb selection of CD Disk titles including the Welcome Tutorial & Hutchinsons Encyclopaedia and Lemmings plus four more games; worth in total almost £200. In addition is the infrared remote controller and all the hardware you need to get you connected.

CDTV with Starter Pack Only £479.95

CDTV is the same size and style as most video recorders, so it can sit unobtrusively above or below your home TV and/or HiFi. With its infrared controller it can be operated from your armchair. But, perhaps more importantly, if you are a computer enthusiast, remember that inside every CDTV there is an AMIGA just waiting to be used. So later on you'll be able to buy the optional keyboard and disk drive to get you into the world of AMIGA computing. Printers, digitisers, genlocks and other accessories can all be connected to give access to many other exciting facilities and also many of the existing software packages available for the AMIGA computer. Never before has there been so much potential from one stunning system, packed with today's technology.

Call in to your nearest branch and have a personal demonstration, or phone for your fully detailed CDTV information pack.

CDTV ACCESSORIES

Due to be released soon
Please call for availability.

CD1220	Keyboard	An 89 key QWERTY Keyboard	£49.95
CD1252	Mouse	Infrared mouse with battery saver	£49.95
CD1200	Trackball	Infrared trackball with the option of direct connection to extend battery life. Duplicates functions of two button mouse and includes two 9 pin ports for standard joysticks	£79.95
CD1400	Caddy	For holding CD within drive	£9.95
CD1401	Memory Card	Personal RAM card containing 64k of memory for storing data or as a bookmark facility within CDTV	£79.95
CD1800	Floppy Drive	Rack mountable floppy drive with 800k capacity. Casing allows room for additional hard drives or modems etc	£99.95
CD1301	Genlock	PAL based video interface card for superimposing CDTV images over a video signal provided by any PAL standard video source.	£149.95
CD1321	Video Card	PAL based video interface card to allow connection to TV's, videos etc requiring UHF, SVHS or composite inputs.	P.O.A.
	Matching External Disk Drive		£64.95

Many AMIGA accessories and peripherals (printers, disk drives, software etc) are compatible with CDTV.
Please phone for information.

MULTIMEDIA IN YOUR OWN HOME

CDTV brings information and entertainment into your home in a way that has never been possible before. It is based around the familiar compact disc player combined with a computer which simply connects to your television and combines still and moving pictures with sound and thus offers a whole new world of possibility.

Whether you want to improve the quality of reference material available to your studies or to enhance your hobbies CDTV has the information at your fingertips. The clever design of the hardware and software means that you pick the information you want in the way that you want it.

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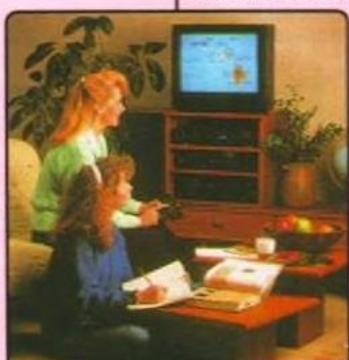


A New Age In Home Entertainment And Education

CDTV finds its place alongside the TV and Hi-Fi system in the home. It is similar in appearance to existing video and CD players and, with its infra red remote control, is just as simple to operate. But that's just the beginning. CDTV transforms television from a passive to an active medium. The vast storage capabilities of the CD make it an ideal mass information provider, capable of storing and displaying a combination of colour pictures, text, graphics, voice and stereo music of the highest quality. CDTV offers a new realm of audio and visual experience for everyone.

FOR REFERENCE

For the classical music buff it is possible not only to hear Beethoven's Fifth Symphony, but to see the orchestra perform, follow the score and read about the composer's life and times. The Timetable of Science and Innovation walks you through 6,250 key events in scientific history. It employs animated maps to show where every event occurred and a visual lift-off from the earth's surface. Key events are accompanied by audio presentations with graphics and sound recordings from the archives of the world's great museums. Browse quickly or examine an exhibit in detail.



like the ultimate stunt pilot with extraordinary realism.

FOR COLLEGES & BUSINESS

When Toyota, decided to open a car assembly plant in Derby, Derbyshire County Council commissioned the production of 'Japan World', a CDTV title which allows students to explore and experience the Japanese language, lifestyle and culture. It also provides a valuable insight to businessmen with information on Japanese business philosophy and negotiation protocol.

CDTV offers a seemingly endless range of possibilities for learning, entertainment and enrichment for everyone whether in the home, the classroom or in business.

FOR HOBBIES

CDTV can also enhance your personal interests. The Gardenfax Series is designed for use by novice or expert and provides hundreds of full colour illustrations, as well as information on planting and requirements for care. New Basics Cookbook provides full colour illustrations of recipes, 'talks' to you to offer tips as you cook and automatically substitutes recipes with a click of the remote control.



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- ESTABLISHED 12 YEARS: Proven track record in sales and service.
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- THE FULL STOCK RANGE: All of your requirements from one supplier.
- FREE CATALOGUES: Will be mailed to you with offers and product details.
- PAYMENT: By cash, cheque, all major credit cards, or extended payment plan.

**RETURN THE COUPON
FOR A FULL COLOUR
CDTV CATALOGUE**

MAIL ORDER HOTLINE

SILICA

Commodore

CDTV™

INTERACTIVE MULTIMEDIA

THE WORLD'S FIRST MULTIMEDIA SYSTEM FOR THE HOME

Are you bored with the TV? Do you yearn for something a little more interesting, something which stimulates the old grey matter and indulges your desire to be entertained? Enter the Commodore CDTV, the world's first advanced learning and entertainment system which plugs straight into your television. Based upon the familiar compact disc player, the CDTV offers a rich set of information and communication capabilities. It brings together pictures, words and sounds in a new format, joining them together in a fascinating world of audio visual challenge and experience.

The multimedia CDTV player combines a professional CD audio system, advanced computer technology and infra red remote control, to offer a wide variety of interactive applications. These range from games, music, gardening and personal health, to educational discs for any level. In addition, CDTV provides high quality audio reproduction for existing music CDs. CDTV is very easy to use and gives you total control over what you see and hear, offering you the chance to learn new skills and discover hidden talents.

£499

INCLUDING VAT & DELIVERY - Order ref: CCD 1000

FREE TITLES!

With every CDTV from Silica, you will receive:

WELCOME - A GUIDE TO CDTV

The 'Welcome' disc replaces a weighty printed manual with colourful and exciting animation, sound, voices and text.

LEMMINGS

WORTH: £34.99

Up to 100 lovable Lemmings drop in to over 100 screens full of danger in this best selling arcade classic.

HUTCHINSON'S ENCYCLOPEDIA

WORTH: £49.99

The first British multi-media encyclopedia. It features over 1.8 million words, 700 biographies, 2000 pictures, 150 maps from ITN and 200 audio samples from the BBC sound archives.

PLUS! FREE HOLIDAY HOTEL ACCOMMODATION

Every CDTV from Silica comes with a FREE 72 page colour brochure with accommodation vouchers. These vouchers entitle 2 people to up to 16 nights FREE hotel accommodation (other options allow 4 people to stay up to 6 nights). There are also accommodation offers on hotels in London and France.

MAIL ORDER:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	Tel: 081-309 1111
LONDON SHOP:	No Late Night Opening	Fax No: 081-309 0608
Opening Hours:	Mon-Sat: 9:00am-6:00pm	
LONDON SHOP:	52 Tottenham Court Road, London, W1P 0BA	Tel: 071-580 4000
Opening Hours:	No Late Night Opening	Fax No: 071-323 4737
SIDCUP SHOP:	Selfridges (1st Floor), Oxford Street, London, W1A 1AB	Tel: 071-629 1234
Opening Hours:	Mon-Sat: 9:00am-8:00pm	Extension: 3914
SIDCUP SHOP:	Late Night: Thursday until 8pm	
	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	Tel: 081-302 8811
	Mon-Sat: 9:00am-5:30pm	Fax No: 081-309 0017
	Late Night: Friday until 7pm	

To: Silica Systems, Dept AMFOR-0192-71, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND ME A CDTV CATALOGUE

Mr/Mrs/Ms: Initials: Surname:

Address:

Postcode:

Tel (Home):

Tel (Work):

NEW! CDTV DRIVE

AMIGA ADD-ON
FOR A500 & A600



Commodore has released their new CDTV drives for the Amiga 500 and 600 computers. Simply plug the drive onto your Amiga and you have the power to:

- USE THE SUCCESSFUL RANGE OF CDTV SOFTWARE. A vast array of titles are available now and more are being released all the time. With the CD's ability to retrieve 540Mb of data (over 610 Amiga floppy disks!), it is the ideal media for software based around entertainment, music, education, reference and much more!
- PLAY NORMAL AUDIO CDs. The high quality CD Player (8 x over sampling) outputs sound quality that is equal to the best top end CD player available today. The CDTV drive gives you the ability to program the CD Player on-screen to select random play, pre-set play order and much more.
- PLAY AND SEE CD+G CDs. Not only do you get high quality audio but CD+G (Compact Disk + Graphics) produces graphics on screen while the track is playing. These graphics are usually based on the theme of the track or can be the lyrics of the song.

A570 CDTV Drive
for A500 Kickstart 2.04
£299
REF. CCD 0570

A570 for A500 Kickstart 1.3
Inc. Kickstart 2 upgrade
£349
REF. CCD 0583

A670 CDTV Drive
for A600 Kickstart 2.05
£299
REF. CCD 0677

NEW! CDTV DRIVE

AMIGA ADD-ON
FOR A500 & A600



Commodore have announced their new CDTV drives for the Amiga 500 and 600 computers. Simply plug the drive onto your Amiga and you have the power to:

- USE THE SUCCESSFUL RANGE OF CDTV SOFTWARE. A vast array of titles are available now and more are being released all the time. With the CD's ability to retrieve 540Mb of data (over 610 Amiga floppy disks!), it is the ideal media for entertainment, music, education and more!
- PLAY NORMAL AUDIO CDs. The CD Player (8 x over sampling) outputs top sound quality. The CDTV drive allows you to select random play, pre-set play order and much more, all with on-screen options.
- PLAY AND SEE CD+G (Compact Disk + Graphics) CDs show graphics on screen (on the track theme, or lyrics) as the track plays.

To use the A670 CD-ROM drive, your Amiga must have 1Mb of chip RAM. All A600s and A500 Plus models are fitted with 1Mb of Chip RAM as standard. If you have a non-plus version of the Amiga 500, your computer will require an internal modification which Silica can perform for you. Please call quoting ref. REA 1000.

There are two versions of the CD-ROM drive:

Amiga 500 (all models) - Ref. CCD 0570
Amiga 600 (avail. Sept.) - Ref. CCD 0677

PLEASE CALL FOR STOCK AVAILABILITY.

£399
A570 - CCD 0570 - for A500
A670 - CCD 0677 - for A600



COMPUTER SYSTEM SAVE £200!

UPGRADE YOUR AMIGA 500 FOR ONLY £399

We are pleased to announce a very special trade-in offer to Amiga 500 owners who are keen to take advantage of the extra benefits offered by Commodore's multimedia innovation, the CDTV. Amiga owners who return their working Amiga 500 computer (with Kickstart V1.2 or 1.3), mouse, power supply and manual to Silica, can claim a £200 discount off the price of the new Amiga CDTV Computer System. This new system (normal RRP £599) is fully compatible with all Amiga software. In addition, it provides access to a vast range of CDTV titles. CDTV works much like a standard Amiga 500 or 600 but has many additional features including a compact disc drive that can hold up to 550 megabytes of information per disc as well as play audio discs to a very high quality. CDTV comes supplied with the latest infra-red remote control handset, giving you full control of your system from the comfort of your armchair.

TRADE-IN OFFER

CDTV SYSTEM £599

AMIGA 500 TRADE IN. -£200

YOU PAY

£399
INC VAT - Ref. AMC 1250



SAVE
£200

MONITOR
OPTIONAL EXTRA

FEATURES INCLUDE:

- Full Compatibility With Existing A500 Software
- 1Mb Chip RAM
- CDTV Player
- Plays Audio CDs & CD + Graphics Discs
- Full QWERTY Keyboard
- Built-in Monitor, Serial & Parallel Ports as on the A500
- 880K 3½" Disk Drive
- Mouse Controller
- Infra-Red Remote Control
- Workbench 1.3 & Manuals
- Welcome CD + Caddy

AMIGA**INTERACTIVE MULTIMEDIA****AMIGA**

INTERACTIVE MULTIMEDIA

WHAT IS CDTV?

Simply put, CDTV mixes CD sound and Amiga type software in one easily controlled unit, and allows you to "interact" with the results through your television. On the outside the CDTV Standalone Player is a sleek, elegant black box. Inside it contains the workings of the UK's most popular home computer, the Commodore Amiga, but with two major differences. Instead of a keyboard and mouse it uses a video style remote controller for simple operation and, instead of a floppy disk drive, there's a compact disc drive.

MUSIC & SOFTWARE

As well as being able to play standard studio compact discs in high quality stereo sound, the CDTV can also use software stored on CD. This is similar to Amiga software, with thousands of Amiga programs available. You also get much, much more - a CDTV Disc is equal to over 600 floppy disks in capacity.

WHAT CAN IT DO?

With CDTV you can listen to your favourite pop group, look up history, play the latest arcade games, have a Karaoke night or learn French. In one unit, CDTV can do things you would otherwise need a video, CD player and computer to do! You can watch as Neil Armstrong walks on the moon, listen to him speak and read the fascinating details of how Apollo got there!

INTERACTIVE MOVIES

A new kind of movie; hi-fi sound tracks and moving pictures just like cinema films, but you determine the outcome and how the plot turns out! Will Batman really save Gotham City? Interactive movies are set to arrive on a CDTV near you soon.

EDUCATION

With its huge storage capacity, colour graphics and easy control, CDTV is ideal for education. Levels from primary education to adult foreign language courses are available.

ENTERTAINMENT

Packed with masses of colourful graphics, hi-fi sound and huge levels, CDTV games are set to dwarf their Amiga counterparts. The CDTV award winning version of Sim City for instance, has 10 Megabytes of extra graphics, studio recorded sound for CD Audio quality, more detailed game play (new zoom mode) and 4 different eras (Medieval, Western, Actual and Future).

REFERENCE

Imagine that you could refer to several encyclopaedia's at once, without having to constantly swap between publications, flip pages or refer to lengthy indexes across multiple books? CDTV Reference titles enable you to do this plus a lot more!

MORE FORMATS

CDTV can play CDTV software, CD audio discs, CD+G (audio discs with lyrics and pictures), CD+MIDI (special tracks along side the audio tracks control MIDI instruments attached to the CDTV). With the aid of a floppy disk drive and keyboard, CDTV can also run most Amiga software.

TECHNICAL SPECIFICATIONS:

- 68000 18MHz processor running at 7.14MHz
- 8 Custom chips for video, sound and memory
- Internal video expansion 15-pin edge connector and DMA port
- Amiga RGB, Digital RGB, Composite (PAL) video output
- 512 Lines/Vertical frequency 50Hz display
- Maximum 1Mb video memory, with palette of 4096 colours and 8 sprites per scanline.
- Data Capacity 540Mb
- Conforms Parallel & RS-232 serial interfaces
- External floppy drive (Amiga compatible), infrared remote control for keyboard, mouse etc.
- 2 Audio ports (phono), MIDI In and MIDI Out, Stereo headphone socket, Smart card slot for RAMROM cards
- Sony/Philips type CD-ROM drive with an average access time of 0.5 seconds and a maximum access time of 0.8 seconds.
- Max audio capacity per disk 29 hours. AM quality
- Dual 16-Bit D/A converter plus 64 levels of attenuation
- Frequency response of 4-20 KHz
- Sample rates of 44kHz to 48kHz
- Channel Specification -650mV
- Harmonic Distortion 0.02% at 1KHz
- Max audio capacity per disk 29 hours. AM quality
- Dual 16-Bit D/A converter plus 64 levels of attenuation

FREE FROM SILICA**SIM CITY CD**

If you have ever played Sim City on a normal Amiga, you will be amazed when you see, listen to and play the Amiga CD version! Now even more addictive, with studio recorded sound and a massive 10Mb of graphics, Sim City CDTV is a life simulation game that has to be seen to be believed! Sim City comes free with every CDTV or A570 from Silica. WORTH £29.99

211092-1400

SILICA SYSTEMS OFFER YOU

- **FREE OVERNIGHT DELIVERY:** On all hardware orders shipped in the UK mainland.
- **TECHNICAL SUPPORT HELPLINE:** Team of technical experts at your service.
- **PRICE MATCH:** We normally match competitors on a "Same product - Same price" basis.
- **ESTABLISHED 14 YEARS:** Proven track record in professional computer sales.
- **£12 MILLION TURNOVER (with 60 staff):** Solid, reliable and profitable.
- **BUSINESS + EDUCATION + GOVERNMENT:** Volume discounts available 081-308 0888.
- **SHOWROOMS:** Demonstration and training facilities at our London & Sidcup branches.
- **THE FULL STOCK RANGE:** All of your requirements from one supplier.
- **FREE CATALOGUES:** Will be mailed to you with offers + software and peripheral details.
- **PAYMENT:** Major credit cards, cash, cheque or monthly terms.

Before you decide when to buy your new Amiga computer, we suggest you think very carefully about WHERE you buy it. Consider what will be like a few months after buying your Amiga, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new products? At Silica Systems, we ensure that you will have nothing to worry about. We have been established for almost 14 years and, with our unrivalled experience and expertise, we can now claim to meet our customers' requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest FREE literature and begin to experience the 'Silica Systems Service'.

MAIL ORDER HOTLINE
081-300 1111

A NEW AGE IN
HOME ENTERTAINMENT

**ADD-ON FOR AMIGA OWNERS
AMIGA A570 FOR THE A500**

£50
OFF RRP
PLUS!
SIM CITY
FREE

COMES WITH
FRED FISH
CDPD COLLECTION
PLUS!
FREE FROM SILICA
SIM CITY
WORTH
NEARLY £50

The A570 is an essential add-on for your Amiga 500. CD-ROM is set to replace disks as the standard format for games and serious titles in the not too distant future. Most software companies have already announced plans to release CD versions of their software!

The sheer storage size of a CD (600 disks) means that using CD software is faster, graphics are enhanced and game play is increased with bigger levels, more complex problems to solve and larger areas to explore. And, being compatible with audio CDs, the sound quality from CD games is unrivalled! Sim City for instance has over 10Mb of data for its graphics alone and has music recorded in a studio! Silica's new low price of £299 means that there is no better time to buy the A570 and, with the award winning Sim City included FREE with every A570 from Silica, there's no better place to buy it from!

- Enables your Amiga to run CDTV software
- Plays normal audio CD discs
- Storage capacity equal to 600 floppy disks
- Internal RAM expansion option (Coming Soon)
- Internal hard drive option (Coming Soon)
- Compatible with CD + G and CD + MIDI formats
- Transfer time 153Kb/second
- Compatible with CD-ROM industry standard ISO9660
- Comes with Fred Fish CDPD collection + Sim City FREE from Silica

Note: 1Mb of Chip RAM/FAT Agnus is required for full compatibility with all CDTV software. Silica offer an upgrade service. Please call and quote REA 1000.

RRP

SAVE £50!
OFF RRP
£349

£299
Ref: CCD 0588

AMIGA CDTV PLAYER

THE HOME
ENTERTAINMENT
SYSTEM FOR
THE WHOLE
FAMILY

SLEEK BLACK DESIGN!

The original pack for non-computer users, very easy to use and set up. The CDTV Stand Alone pack blends in well with your standard home entertainment equipment and is ideal for the whole family.

COMES WITH
LEMMING'S +
HUTCHINSON'S
ENCYCLOPEDIA
PLUS!
FREE FROM SILICA
SIM CITY
WORTH
NEARLY £115

- Based on the best selling Amiga computer
- Operated from remote hand held controller
- Plays CD audio discs
- Compatible with CD+G & CD+MIDI formats
- Upgradeable to a full computer
- Over 100 CDTV titles available
- Includes - Lemming's: The addictive, award winning game. Hutchinson's: A vast encyclopedia

CDTV Player £399.99
Lemmings £34.99
Sim City £29.99
Hutchinsons Encyclopedia .. £49.99

Total Pack Value: £514.96
Less Pack Saving: £145.96

Silica Price: £369.00

£369

Ref: CCD 1000

OVER 100 SOFTWARE TITLES AND PERIPHERALS AVAILABLE CALL FOR A FREE PRICE LIST

AMIGA**CDTV****MULTIMEDIA SYSTEM**

EASY TO USE HOME ENTERTAINMENT SYSTEM

- Infrared Remote Control
- Sleek black design
- Keyboard, disk drive and mouse included
- Based on the best selling Amiga computer
- Plays CD audio discs
- Compatible with CD+G & CD+MIDI formats
- Over 100 CDTV titles available
- Compatible with 100s of Amiga programs
- Fred Fish COPD is a collection of 600 disks of public domain software. It includes utilities, applications, games and tools

FREE ZOO PACK
WORTH £127

CDTV Player	£399.99
CDTV Keyboard	£49.99
CDTV Disk Drive	£99.99
Fred Fish CDPD	£19.99
City	£29.99
Zool Pack	£127.92

Total Pack Value: £727.87
Less Pack Saving: £228.87
Silica Price: £499.00

£499
Ref: CCD 1250

To: Silica Systems, AMFOR-1292-99, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND INFORMATION ON AMIGA CDTV

Mr/Mrs/Miss/Ms: Initials: Surname:

Company Name (if applicable):

Address:

Postcode:

Tel. (Home):

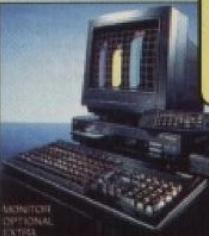
Tel. (Work):

SILICA
SYSTEMS





MULTIMEDIA SYSTEM



MONITOR OPTIONAL EXTRA

A complete CDTV environment. With keyboard and disk drive it is fully software compatible with the Amiga 500, and able to run all Amiga games and application software. £50 of CDTV software vouchers PLUS Sim City (worth £29.99) are included FREE with every CDTV Multimedia System from Silica.

FREE!

FROM SILICA
with the CDTV
Multimedia System

SIM CITY
ENHANCED CD VERSION

**£50 of CDTV
SOFTWARE
VOUCHERS**

£80

£499

Ref: CCD 1250

AMIGA

CDTV
INTERACTIVE MULTIMEDIA

SALE!

**£100 OFF RRP!
£50 OF VOUCHERS!
FREE SIM CITY**

AMIGA A570 ADD-ON FOR AMIGA 500 OWNERS

- Enables your Amiga to run CDTV software
- Plays normal audio CD discs
- Storage capacity equal to 600 floppy disks
- Internal RAM expansion option (Coming Soon)
- Internal hard drive option (Coming Soon)
- Compatible with CD + G and CD + MIDI formats
- Transfer time 153Kb/second
- Compatible with CD-ROM industry standard ISO9660
- Comes with Fred Fish CDPD collection + Sim City FREE from Silica

Note: 1Mb of CHIP RAM/FAT Agnus is required for full compatibility with all CDTV software. Silica offer an upgrade service. Please call and quote REA 1000.

**SAVE £100! OFF NORMAL
RRP OF £349**

£249

Ref: CCD 0588

FREE!

FROM SILICA
with the A570

SIM CITY
ENHANCED CD VERSION

**£50 of CDTV
SOFTWARE
VOUCHERS**

£80

The A570 is an essential add-on for your Amiga 500. CD-ROM is set to replace disks as the standard format for games and serious titles in the not too distant future. Most software companies have already announced plans to release CD versions of their software!

The sheer storage size of a CD (600 disks) means that using CD software is faster, graphics are enhanced and game play is increased with bigger levels, more complex problems to solve and larger areas to explore! And, being compatible with audio CDs, the sound quality from CD games is unrivalled! Sim City for instance has over 10Mb of data for its graphics alone and has music recorded in a studio! Silica's special sale price of £249 means that there is no better time to buy the A570 and, with the award winning Sim City included FREE with every A570 from Silica Systems, there's no better place to buy it from!

Silica Systems - May 93



FREE! Sim City CD

**LESS
THAN
HALF
PRICE!
£249**

RRP £349

CDTV
INTERACTIVE MULTIMEDIA

CDTV ADD-ON FOR A500 or A500PLUS

With **FREE! Sim City CD** from Silica worth £29.99

- Enables your Amiga to run CDTV software
- Plays normal audio CD discs
- Storage capacity equal to 600 floppy disks
- Internal RAM expansion option (Coming Soon)
- Hard Drive option (Coming Soon)
- Transfer time 153Kb/second
- Compatible with CD + G and CD + MIDI formats
- Compatible with ISO9660 standard
- Comes with CDPD collection

£149

Ref: CCD 0570

CDTV ADD-ON FOR A500 or A500PLUS



A570 UPGRADE

FREE FROM SILICA:

- Hutchinsons Encyclopedia CD RRP £29.99 A fascinating and unique reference tool comprising the complete Hutchinsons Encyclopedia.
- CDPD - 600 Public Domain Titles RRP £19.99 Over 600Mb of Public Domain software and shareware. Includes word processors, data bases and spreadsheets etc., games and utilities.

WORTH OVER £49

CDTV SOFTWARE



LEMMINGS

These succulent critters aren't about to start nibbling take on impossibly difficult puzzles to ensure survival to their descendants.

Ref: CDS 4281

£9.99



SIM CITY

As the mayor of New City you take control of police, fire and medical departments. You'll challenge crime, natural disasters, weather, aircraft disasters.

Ref: CDS 4821

£9.99



**SUPER GAMES
PACK**

This ultra high action compilation is sure to raise your action level. Includes Jet Set Willy, Commando, Laser Phaser.

Ref: CDS 8971

£9.99

This Compact Disc-playing add-on simply clips to the side expansion port of your Amiga 500 and is immediately ready to deliver its power.

- Enables your Amiga 500 to run CDTV software
- Plays normal audio CD discs
- Storage capacity equal to 600 floppy disks
- Transfer time 153Kb/second
- Compatible with CD + G and CD + MIDI formats
- Compatible with ISO9660 standard
- Some old A500s need modification - call to advise

**WINNER OF THE
AMIGA GOLD AWARD 91%**

**NEW LOW
PRICE**

**RRP £349
£99**

INC VAT - Ref: CDS 0570

Silica Systems - Dec 93

CDTV ACCESSORIES & SOFTWARE



CODE	DESCRIPTION	RRP Inc VAT	SILICA Disc	SILICA Inc VAT
CCA 1000	CADDY Spare disk caddy for your CDTV.	£9.99	£1	£8.99
CCA 1400	PACK OF TWO CADDIES 2 disc caddies as above.	£14.99	£1	£13.99
CCA 2200	TRACKBALL CONTROLLER Has two joystick ports and is either remote or cable linked to your set.	£79.99	£5	£74.99
CCA 2252	INFRA-RED MOUSE Stylishly designed in black to match your CDTV.	£49.99	£2	£47.99
CCA 2320	KEYBOARD Fashioned in black to match your CDTV.	£49.99	£2	£47.99
CCA 3064	64K MEMORY CARD Store information on this memory card.	£79.99	£5	£74.99
CCA 3256	256K MEMORY CARD 256K version of the above.	£249.99	£20	£229.99
CCA 4321	SCART CARD FOR CDTV Includes interface & cable for connection to scart compatible monitor/TV.	£29.99	£2	£27.99
CCA 6000	COMMODORE 3.5" 880K BLACK EXTERNAL DRIVE Runs Amiga programs includes Workbench disks and manuals.	£99.99	£10	£89.99
DRI 1159	AMITEK 3.5" 1Mb EXTERNAL DRIVE Features Sony Mechanism - Anti-Click - Switchable Anti-Virus	£69.95	£10	£59.00
CCA 7500	VIDEO GENLOCK This card enables you to combine video camera images with those on your CDTV and record the results to a video recorder.	£149.99	£10	£139.99
CCA 8100	VOICE MASTER FOR THE CDTV Records and plays back your voice.	£39.99	£5	£34.99
MON 4193	BLACK MONITOR To complete your CDTV system. Includes cable.	£179.99	£1	£179.00



AMITEK DISK DRIVE



MEMORY CARD

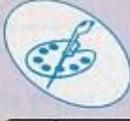
BLACK MONITOR



TRACKBALL CONTROL

TITLES HIGHLIGHTED IN YELLOW ARE ALSO CD² COMPATIBLE

ARTS & LEISURE



ENTERTAINMENT



EDUCATION



CODE	DESCRIPTION	RRP Inc VAT	SILICA Disc	SILICA Inc VAT
CSA 2511	ADVANCED MILITARY SYSTEMS SERIES - Information on the world's finest military technology.	£29.99	£3	£26.99
CSA 6691	ANIMALS IN MOTION - Examine, analyse, manipulate and export a massive range of animal images frame by frame.	£29.99	£3	£26.99
CSC 8751	CONNOISSEUR OF FINE ARTS - Ultimate reference detailing the world's most expensive and unusual treasures. Superb images.	£34.99	£4	£30.99
CSF 6881	FRUITS, VEGETABLES AND HERBS - Guide to choosing and cultivating more than 170 edible plants.	£34.99	£10	£24.99
CSG 2321	GARDEN PLANTS - Select from over 400 bedding plants all presented in stunning colour detail.	£34.99	£20	£14.99
CSI 5251	INDOOR PLANTS - Comprehensive encyclopaedia of indoor plants - over 2000 plants presented with explanatory text.	£34.99	£10	£24.99
CST 7171	TREES, SHRUBS AND CONIFERS - Interactive information program on over 300 horticultural shrubs and conifers.	£34.99	£4	£30.99
CSW 3981	WOMEN IN MOTION - Historic 19th century nude photographs by Muybridge. Unique insight into moving frame.	£29.99	£3	£26.99

REFERENCE



CODE	DESCRIPTION	RRP Inc VAT	SILICA Disc	SILICA Inc VAT
CSC 5831	AMERICAN HERITAGE DICTIONARY - 80,000 entries, 3,000 illustrations, automated word pronouncer and speller.	£49.99	£5	£44.99
CSC 6031	AMERICAN VISTA ATLAS - Detailed maps of the USA and its cities.	£54.99	£7	£47.99
CSC 3001	CDPO COLLECTION I - 600Mb of freely distributable software.	£19.95	£5	£14.95
CSC 3121	CDPO COLLECTION II	£19.95	£5	£14.95
CSC 8031	COMPLETE WORKS OF SHAKESPEARE - All major scenes are illustrated with woodcuts.	£29.99	£3	£26.99
CSD 7151	DR. WELLMAN FAMILY ADVISOR - Comprehensive home health system.	£54.99	£7	£47.99
CGG 9001	GUINNESS CDTV DISC OF RECORDS - Interact with the famous Guinness Book of Records.	£34.99	£5	£29.99
CGG 7251	GROLIER ENCYCLOPEDIA	£24.99	£5	£19.99
CSH 8201	HUTCHINSON'S ENCYCLOPEDIA - 1.5 million words of indexed text with pictures, sound recordings and maps.	£29.99	£20	£19.99
CSI 2101	ILLUSTRATED HOLY BIBLE - Old and New Testament text.	£29.99	£3	£26.99
CGN 0051	NASA - Heroic Age of Space Flight - Celebrates 25 years of space exploration.	£19.99	£2	£17.99
CS5 5461	STAMPS OF FRANCE	£39.99	£10	£39.99
CSC 2841	THE DEMO COLLECTION	£19.95	£2	£17.95
CST 2961	THE NEW BASIC ELECTRIC COOK BOOK - 1800 recipes.	£39.99	£10	£29.99
CST 4111	TIMETABLE OF BUSINESS, POLITICS AND MEDIA - Explore the accumulation of human wealth, power and knowledge.	£36.99	£4	£36.99
CST 4171	TIMETABLE OF SCIENCE AND INNOVATION - Explore science and technology.	£39.99	£3	£36.99
CSW 4751	WORLD VISTA ATLAS - First multimedia world atlas.	£54.99	£15	£39.99

MUSIC



CODE	DESCRIPTION	RRP Inc VAT	SILICA Disc	SILICA Inc VAT
CSC 2881	CD REMIX v2 - Remix extracts from your favourite audio CDs.	£29.99	£20	£19.99
CSK 0871	KARAOKE HITS 1	£19.99	£3	£16.99
CSK 1191	KARAOKE FUN HITS 1 - Music and pictures to get you swinging from the chandeliers.	£14.99	£2	£12.99
CSK 1201	KARAOKE FUN HITS 2 - Music and pictures for budding Buddies.	£14.99	£2	£12.99
CSM 6721	MUSICOLOR	£49.99	£15	£34.99
CSM 6731	MUSIC MAKER - Play music within minutes.	£34.99	£4	£30.99

CODE	DESCRIPTION	RRP Inc VAT	SILICA Disc	SILICA Inc VAT
CSC 3741	AIR WARRIOR	£34.99	£5	£29.99
CSC 4271	ALISTAIR IN OUTERSPACE	TBA	-	-
CSC 4621	ALL DOGS GO TO HEAVEN - Colouring book, pictures, spoken words and songs.	£34.99	£4	£30.99
CSB 481	BATTLE CHESS - Animated medieval chess game.	£39.99	£4	£35.99
CSB 4871	BATTLE STORM - Fast and fierce arcade battle.	£29.99	£3	£26.99
CSC 2051	CASE OF THE CURIOUS CONDOR - Thousands of images and sounds in this 'Whodunnit'.	£34.99	£4	£30.99
CSC 2131	CASINO GAMES - High stakes without the quakes.	£29.99	£3	£26.99
CSC 3171	CDTV FOOTBALL	£39.99	£4	£35.99
CSC 3551	CHAOS IN ANDROMEDA - Command androids to rescue scientists.	£29.99	£3	£26.99
CSC 6281	CLASSIC BOARD GAMES - Play Chess, Checkers and Backgammon.	£34.99	£10	£24.99
CSD 2531	DEFENDER OF THE CROWN - Brave knights and deadly jousts fill this fully animated adventure game.	£29.99	£15	£14.99
CSD 3521	DINOSAURS FOR HIRE - Watch your favourite comic book characters on CDTV.	£14.99	£2	£12.99
CSE 9481	EUROPEAN SPACE SIMULATOR - Test your skills of resource management.	£34.99	£4	£30.99
CSP 2431	FANTASTIC VOYAGE - Arcade version of the film.	£34.99	£4	£30.99
CSD 5241	GLOBAL CHAOS - Generates hard core dance tracks, soothing music and outrageous raves.	£29.99	£3	£26.99
CSD 9051	GUY SPY - Advanced adventure gaming	£29.99	£3	£26.99
CSD 3681	HEREWITH THE CLUES - A great 'Whodunnit'.	£39.99	£4	£35.99
CSD 7081	OUND OF THE BASKERVILLES - Sherlock Holmes' greatest case!	£29.99	£3	£26.99
CSD 4281	LEMMINGS - Cutely classic climb cliffs, parachute from great heights. Over 1000 levels.	£34.99	£25	£19.99
CSL 6671	LOGICAL - Logic game. 100 levels, 4 backgrounds.	£25.99	£3	£22.99
CSDM 0721	MUSICOLOR - 15 interactive music lessons based on the famous Candida John course.	£34.99	£4	£30.99
CSP 7121	PREHISTORIK - Go in search of your favourite prehistoric munchies.	£34.99	£4	£30.99
CSP 7251	PREY - Merchants & miners, ready to exploit the mineral of KG-42. Super smooth 3D graphics.	£34.99	£4	£30.99
CSDR 0631	RAFFLES - Play the part of a gentleman cat burglar.	£34.99	£4	£30.99
CSP 2171	READING WITH ASTERIX AND SON - Professional actors, compelling scripts and pictures.	£19.99	£2	£17.99
CSD 3221	SHERLOCK HOLMES - Consulting Detective - Become Watson in this challenging adventure game.	£39.99	£4	£35.99
CSD 4921	SIM CITY - Create your own city and become Mayor, but be prepared for the worst.	£29.99	£20	£19.99
CSD 7381	SNOOPY - The case of the missing blanket.	£34.99	£4	£30.99
CSD 9371	SUPER GAMES PACK - 3 state of the art arcade games.	£29.99	£10	£19.99
CST 2731	TEAM YANKEE - The ultra-realistic 3D vector graphics action strategy game.	£34.99	£4	£30.99
CST 2821	THE CURSE OF RA - 200+ varied levels, of logic puzzles.	£29.99	£3	£26.99
CST 3841	THE BREAK TENNIS - For 1-2 players.	£24.99	£3	£21.99
CST 5961	TOWN WITH NO NAME - Animated Spaghetti Western.	£29.99	£3	£26.99
CST 7481	TRIVIAL PURSUIT - 2000 questions. History, Sport & Science.	£49.99	£5	£44.99
CST 8751	TURRICAN - The ultimate warrior needs his awesome arsenal of weapons to reclaim Alteria.	£29.99	£3	£26.99
CST 8761	TURRICAN II - Silky smooth graphics & outstanding sound.	£29.99	£3	£26.99
CSD 3621	ULTIMATE BASKETBALL - Coach or play.	£29.99	£3	£26.99
CSW 7501	WRATH OF THE DEMON - Multi-level medieval arcade game.	£39.99	£20	£19.99

CODE	DESCRIPTION	RRP Inc VAT	SILICA Disc	SILICA Inc VAT
CSC 2881	CD REMIX v2 - Remix extracts from your favourite audio CDs.	£29.99	£20	£19.99
CSK 0871	KARAOKE HITS 1	£19.99	£3	£16.99
CSK 1191	KARAOKE FUN HITS 1 - Music and pictures to get you swinging from the chandeliers.	£14.99	£2	£12.99
CSK 1201	KARAOKE FUN HITS 2 - Music and pictures for budding Buddies.	£14.99	£2	£12.99
CSM 6721	MUSICOLOR	£49.99	£15	£34.99
CSM 6731	MUSIC MAKER - Play music within minutes.	£34.99	£4	£30.99

A570 AMIGA 500 UPGRADE

UPGRADE YOUR A500 TO A STATE OF THE ART CDTV PLAYER



A500 & A500 PLUS UPGRADE

Explore a new world of interactive audio visual entertainment without leaving the familiar keyboard of your Amiga 500. This Compact Disc-playing add-on simply clips to the side expansion port of your Amiga and is immediately ready to deliver its power. From there you'll discover that CDTV discs can store high definition colour images and millions of words as well as all of the more usual audio tracks you will find in high street record stores.

LOOKING TO THE FUTURE

CDTV discs are also being used as a storage medium by software companies who are continually looking for ways to upgrade the graphics and sound capabilities of games, educational and multi-media presentation packages. Just think, a single CD can hold the equivalent of 600 floppy disks, so imagine the game sizes of the future! 30Mb? 60Mb? The complexity and performance of such arcade and strategy games will only be restrained by the determination of software programmers and the processing power of the computer.

THE IDEAL CHOICE

The high specification Amiga upgrade is the ideal choice ... and CDTV is not just for the forward-looking arcade game player. The storage potential of CD means that the text, diagrams and colour photographs of encyclopaedic works covering such topics as art and science can be displayed on the screen. The co-processing power of the Amiga can then manipulate the text and images to your own requirements. It can also play standard music CDs incorporating all the stereo advantages of the latest digital recording techniques. But, for the price of a standard audio CD player you can have animated pictures, a wealth of text and not forgetting a high performance computer.

- ENABLES YOUR AMIGA TO RUN CDTV SOFTWARE
- PLAYS NORMAL MUSIC CDs
- STORAGE CAPACITY EQUAL TO OVER 600 FLOPPY DISKS
- COMPATIBLE WITH CD+G AND CD+MIDI FORMATS
- TRANSFER TIME 152K/SEC
- EACH DISK HOLDS UP TO 540Mb (UNCOMPRESSED) OF DATA

COMMODORE A570 CD INTERFACE

SPEED

Fast loading times as you'd expect, but the quick and easy installation is a nice bonus.

DOCUMENTATION

The manual is surprisingly clear and easy to follow. It explains everything you need to know.

ACCESSIBILITY

It couldn't be much simpler - most of the time it's just plug-in and go.

FEATURES

Very versatile, capable of playing a number of different CD types. The casing design is poor.

VALUE

At £99 including CDPD and Hutchinsons it's fantastic value.



92%

WHAT THE EXPERTS SAY

This is what *Amiga Format*, the UK's leading Amiga specialist publication, have to say about the A570 CDTV Add On for the A500



92%

PLAYS STANDARD MUSIC CDs

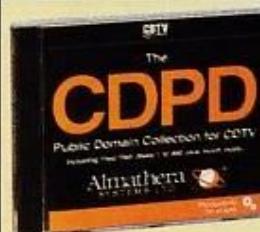
NORMAL RRP £349
SILICA PRICE £99
SAVE £250

C OFFICIAL PRODUCT

COMPLETE COMPATIBILITY

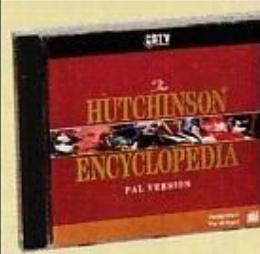
CDTV works with Amiga 500^{PLUS} machines, but older Amiga 500s require an internal modification and upgrade that enables your RAM expansion to be used as Chip RAM. Simply return your Amiga with a payment of £29.95 quoting REA 1000. This price assumes you already have a 1Mb Amiga. If you do not, you should add either £18.95 (RAM 0505) for a 512K RAM board without clock or £23.95 (RAM 0510) for a 512K RAM board with clock - see page 41.

FREE CD SOFTWARE



CDPD1 - INC FRED FISH RRP: £19.99

Over 600Mb of Public Domain software and shareware. Includes utilities such as word processors, databases, spreadsheets, games, applications, graphics, sound samplers and almost every kind of program you could ever want. Inc Fred Fish disks 1-660.



HUTCHINSONS ENCYCLOPEDIA RRP: £29.99

A fascinating and unique reference tool, containing the complete Hutchinson database, including over 1.5 million words of fully indexed text with pictures from the Hulton picture library, sound recordings from the BBC sound archives and maps from ITN. An extremely interesting and educational interactive experience.

WORTH NEARLY £50

A570 CDTV PLAYER	£349.99
CDPD1 - INCLUDES FRED FISH	£19.99
HUTCHINSONS ENCYCLOPEDIA	£29.99
Order Ref: CCD 0570 SILICA PRICE	£99 INC VAT
Pack Value: - £300.97	£399.97
Pack Saving: - £300.97	SILICA: £99.00

Commodore

CDTV™

INTERACTIVE
MULTIMEDIA

A NEW MEDIA REVOLUTION...



CDTV is a completely new sound and vision experience that's as easy to use as your video. You will be able to access, view and listen to a vast array of subject matter on your TV and listen through your Hi-Fi audio system... all at the touch of the buttons on CDTV's infra-red remote control!

The all new 'multimedia' compact discs can be accessed at will to display text and graphical information 'on-screen' complete with their own music and spoken word sound tracks. Disciplines already covered include reference, arts and leisure, education for all ages, music and entertainment.

Of course your collection of music CD's can be played and even the latest CD+G (music plus graphics) compact discs from your favourite artists are catered for.

For Business... you get the most cost effective multimedia platform around; imagine the impact on presentation and training techniques.

For Education... you get a truly interactive learning tool suitable for all age groups where learning becomes fun.

For Home... you get the most complete home entertainment system available. Of course a variety of topics for all the family are available.

CDTV will...

- Plug straight into a domestic TV or RGB Monitor.
- Connect to your Hi-Fi audio system with a specification that will out perform that of stand alone music CD players of only a few years ago (16 bit x 8 oversampling). Play both audio CD's and CD+G (audio CD's plus graphics).
- Allow you to interact through the new 'Multimedia' CD's over a wide range of subjects with total control over the information examined. A combination of text, graphics, spoken words, music and animation all from one source at the touch of a button.
- Save information on 'personal memory cards' to enable the CDTV to be switched off without loss, for resumption later.
- Operate from the infra-red remote control so that you can stay in your favourite armchair and still take advantage of CDTV's amazing features via simple 'one touch' commands.
- Give you access to 540 megabytes (250,000 pages of text) per CD of information to read as you wish.
- Support musical keyboards through the built-in MIDI interface; used with music 'play along' CD's or 'tutor' CD's you can sit back and let CDTV actually play for you. You will even be able to choose from a wide range of sampled sounds to experiment with.

What you get...

The Great New Commodore CDTV complete with infra-red remote control and with all leads necessary to connect to a domestic TV and your Hi-Fi audio system via stereo input ports... just plug in and use!

Plus Free...

CDTV WELCOME DISC...

Simply pop this CD into your CDTV for a guide to your new CDTV, giving you simple to follow on screen and audio instructions.

TWO CD VOUCHERS WORTH OVER £84!

Redeemable with Commodore for TWO FREE CD's...
'HUTCHINSONS ENCYCLOPAEDIA', (25000 entries, 7000 biographies and 250 tables) plus 'LEMMINGS' (this brilliant award winning game will keep everyone amused for ages).

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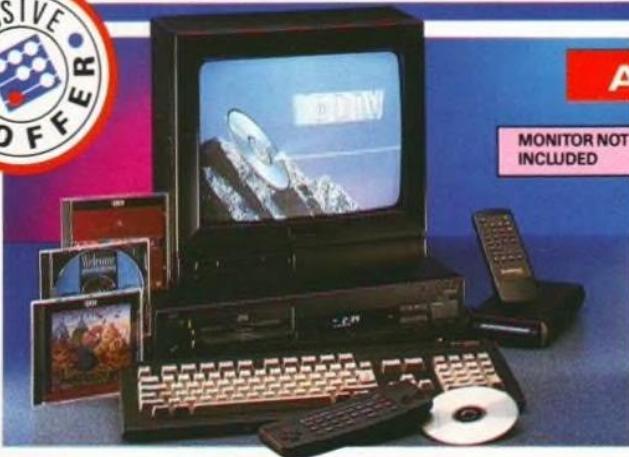
CDTV™
INTERACTIVE
MULTIMEDIA

CDTV™
(COMMODORE DYNAMIC
TOTAL VISION) is a registered
trademark of Commodore.

AMIGA CDTV

Amiga CDTV is a revolutionary new concept in home entertainment and education, representing leading edge technology. The CDTV player combines a high quality performance CD audio system, advanced Amiga technology featuring the new Kickstart 2 ROM and infrared remote control to offer a huge range of interactive applications, from Mega games to music and educational applications, e.g. languages (French, German and Spanish).

The integration of CD audio, graphics, animation, video and text gives you true multi media for corporate and business presentations. Each CD-ROM disk can store an incredible 540MB of data, equivalent to a quarter of a million pages of text. The Amiga CDTV connects to a standard television in the same way as a video recorder and can be connected to a hi-fi system for high quality audio sound.

**AMIGA CDTV STARTER PACK**

The starter pack gives you a full 1MB Amiga Plus compatible system featuring:-

- Amiga CDTV player
- CDTV Amiga keyboard
- Cumana 3.5" CDTV external black drive
- Software:- ▶ Welcome disk
- ▶ Lemmings ▶ Hutchinsons encyclopedia

RRP - £699.99

CALCULUS PRICE



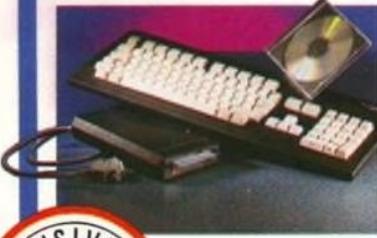
MEGADISC
530 TITLES ON
THIS ONE CDTV DISK
FREE WITH THIS
PACKAGE!!!

WORTH
£79.00
R.R.P.

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AMIGA CDTV UPGRADE PACK

The CDTV Amiga Upgrade Pack allows existing CDTV owners to tap into the massive base of Amiga 3.5" games software.



RRP - £199.99

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PRICE**



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14" colour TV/Monitor,
with remote control
and 40 channels.
Amiga Scart lead included.



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TV complete with
remote control and
Amiga lead
- Amplified Stereo
speakers
- Software:-
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- ▶ Lemmings
- ▶ Hutchinsons Encyclopedia
- ▶ XENON 2 ▶ FALCON 16

**XENON 2**

The ultimate
arcade action
game featuring
top chart stereo
sounds and artist history.

**FALCON F16**

The complete
combat flight
simulator with
full pre-flight briefing
including animation and
in-flight voice communications



RRP - £839.90

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PERIPHERALS & SOFTWARE

CDTV keyboard	£49.99
CDTV Tracker Ball (infrared)	£79.99
CDTV Genlock	£149.99
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Top Ten Software Titles

Word Vista Atlas · Moving Stomach Ache ·
Tales of Peter Rabbit · Long Hard Day At The
Ranch · Wrath of the Demon · Sim City ·
Defender of the Crown · Snoopy · Xenon ·
Falcon F16

SOFTWARE Top Ten Software Titles
with 10% off RRP (Offer open until 31/3/92)

10% OFF

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The Amiga CDTV connects to a standard television in the same way as a video recorder and can be connected to a hi-fi system for high quality audio sound.



SAVE £139.98

RRP - £638.97
CALCULUS PRICE

f499.99

AMIGA CDTV GAMES PACK

The best value CDTV games pack around featuring two top quality games in original packaging and also the 530 titles megadisc, FRED FISH all completely free.

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- Software:-
- ▶ Welcome disc
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Driving down unfamiliar country roads after dark, your worst nightmare comes true!!



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PLUS

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The starter pack gives you a full 1MB Amiga compatible system featuring:-

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- CDTV Amiga keyboard
- Cumana 3.5" CDTV external black drive
- Software:- ▶ Welcome disk

FRED FISH MEGADISC

530 TITLES ON THIS ONE CDTV



RRP - £699.99

CALCULUS PRICE

f629.99

MONITOR NOT INCLUDED



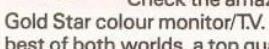
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14" colour T.V.

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- 21 Pin Amiga Scart Lead
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Top Ten Software Titles

Word Vista Atlas · Moving Stomach Ache Tales of Peter Rabbit · Long Hard Day At The Ranch · Wrath of the Demon · Sim City Defender of the Crown · Snoopy · Xenon · Run for Barney

10% OFF

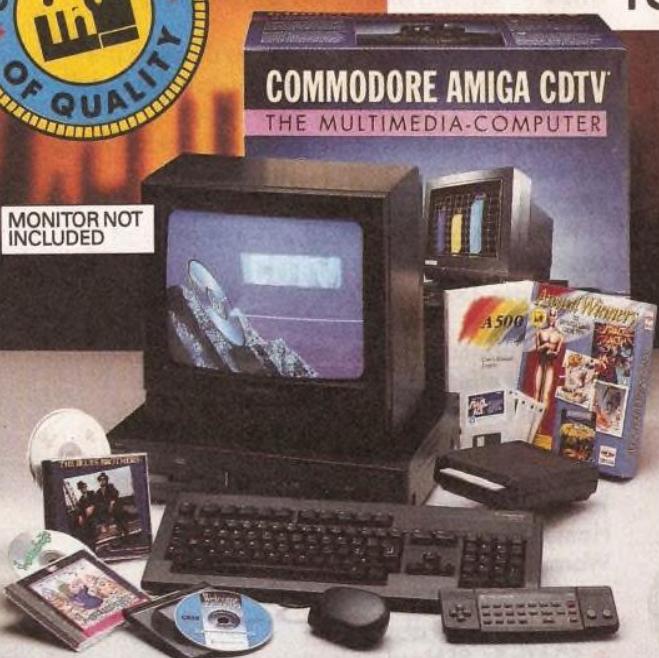
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THE MULTIMEDIA-COMPUTER

MONITOR NOT INCLUDED

GOLDSTAR 14" REMOTE TV/MONITOR
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IT'S A CD PLAYER —Yes, it will play all your Primal Scream, Pavarotti, Pink Floyd and any other CD you care to mention in superb high quality stereo, with remote infra red control.

IT'S AN AMIGA —Plug in the keyboard, switch on the external disk drive and the colossal range of inexpensive Amiga software can be used on your CDTV.

IT'S A MULTIMEDIA SYSTEM —Just imagine, stereo sound, images and text all on screen. It asks a question, you respond, it responds — truly interactive! Each CD disc holds hundreds of megabytes of data with instant optical access. The whole of Hutchinson's Encyclopedia fits onto 1 disc. This interactive system is a unique aid for Education, Business or Leisure. The future is here!

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- CDTV keyboard
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- CDTV Infra red remote controller
- CDTV wired mouse
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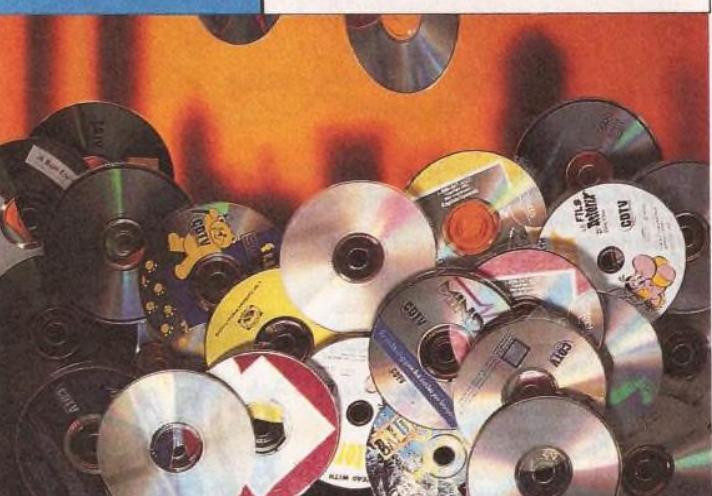
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CDTV

SOFTWARE



AMIGA CDTV

STARTER PACK



If you already own a CDTV or are just about to purchase one you'll be pleased to know that INDI stock probably the largest and most comprehensive list of CDTV software in the country. Below is a list of top selling titles we are offering at very competitive prices. For more details please phone our sales team. (Prices include postage).

ENTERTAINMENT

Battle Chess	34.99	A Bun for Barney	24.99
Classic Board Games	29.99	Asterix Black Gold French I	31.99
Defender of the Crown	24.99	Asterix Black Gold French II	31.99
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		Karaoke Hits I	14.99
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AUDIO
Blues Brothers
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Pipemania • Populous
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£122.52MULTI MEDIA
Lemmings CDTV
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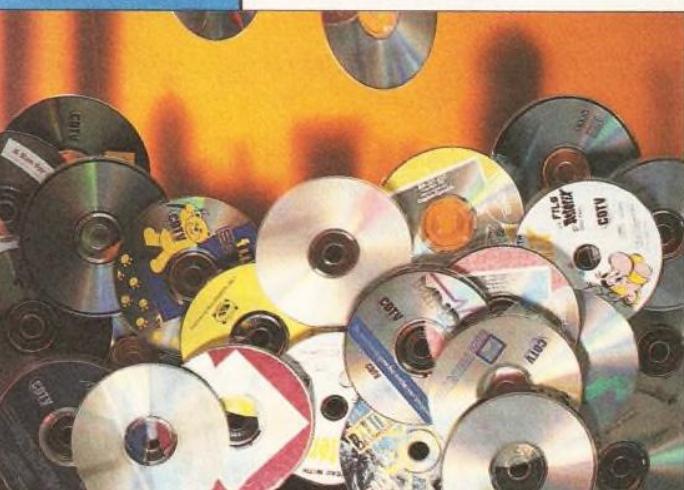
AMIGA CDTV

STARTER PACK



CDTV

SOFTWARE



If you already own a CDTV or are just about to purchase one you'll be pleased to know that INDI stock probably the largest and most comprehensive list of CDTV software in the country. Below is a list of top selling titles we are offering at very competitive prices. For more details please phone our sales team. (Prices include postage).

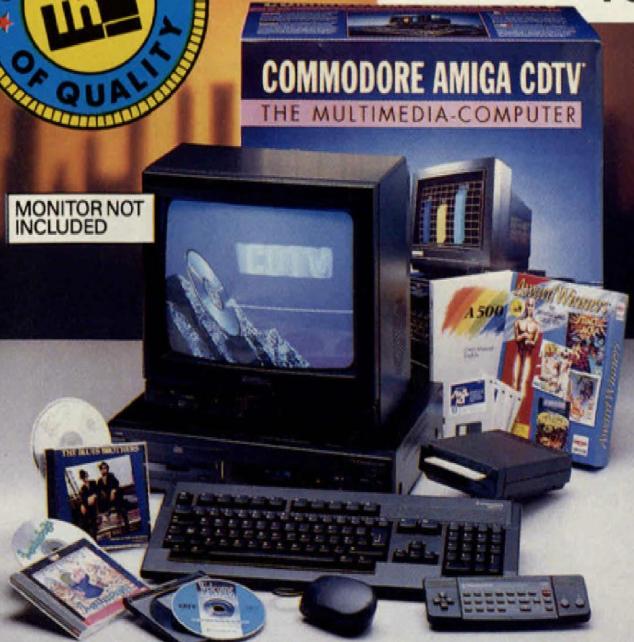
EDUCATION

A Bun for Barney	24.99	ENTERTAINMENT	Defender of the Crown	24.99
Asterix and Son English	19.99	Battle Chess	34.99	
NASA The 25th Year	19.99	Battle Storm	24.99	
The Paper Bag Princess	29.99	Classic Board Games	29.99	
Thomas's Snow Suit	29.99	Hound of Baskervilles	24.99	
Tale of Peter Rabbit	34.99	Psycho Killer	24.99	
My Paint	24.99	Trivial Pursuit	45.99	
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MUSIC		Basketball	24.99	
Music Maker	31.99	Dinosaurs For Hire	14.99	
Remix	24.99	All Dogs Go To Heaven	29.99	
REFERENCE		Raffles	29.99	
Dr Wellman	49.99	Prehistoric	24.99	
Guinness World of Records	31.99	Town With No Name	29.99	
Illustrated Holy Bible	24.99	Team Yankee	29.99	
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Pipemania • Populous
Kickoff 2 • Space Ace
£122.52MULTI MEDIA
Lemmings CDTV
£34.99

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IT'S A MULTIMEDIA SYSTEM —Just imagine, stereo sound, images and text all on screen. It asks a question, you respond, it responds — truly interactive! Each CD disc holds hundreds of megabytes of data with instant optical access. The whole of Hutchinson's Encyclopedia fits onto 1 disc. This interactive system is a unique aid for Education, Business or Leisure. The future is here!

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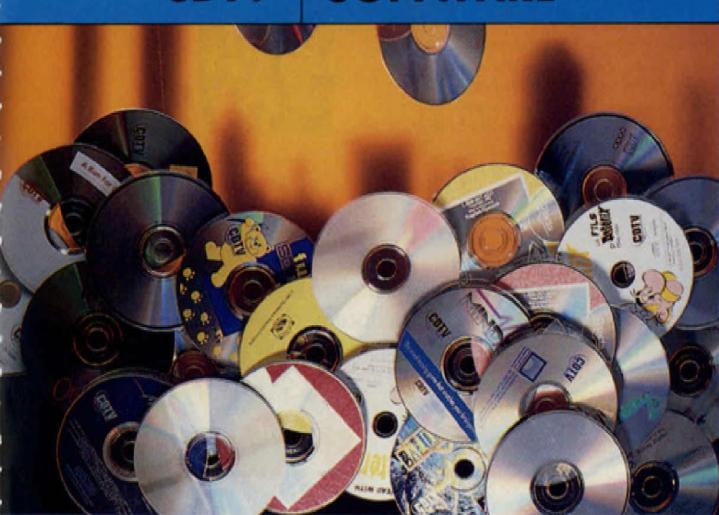
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- CDTV keyboard
- CDTV 1411 3.5" Disc Drive
- CDTV Infra red remote controller
- CDTV wired mouse
- CDTV Welcome Disc

- Manuals
- Fred Fish CDTV
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- Blues Brothers (£12.99)
- Pipemania, Populous, Kickoff 2, Space Ace (£122.52)

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Tale of Peter Rabbit	34.99	Psycho Killer	24.99
My Paint	24.99	Trivial Pursuit	45.99
Cinderella	34.99	Wrath of Demon	24.99
MUSIC		Basketball	24.99
Music Maker	31.99	Dinosaurs For Hire	14.99
Remix	24.99	All Dogs Go To Heaven	29.99
REFERENCE		Raffles	29.99
Dr Wellman	49.99	Prehistorik	24.99
Guinness World of Records	31.99	Town With No Name	29.99
Illustrated Holy Bible	24.99	Team Yankee	29.99
Electronic Cook Book	29.99	Snoopy	29.99
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Battle Chess	34.99
Battle Storm	24.99
Classic Board Games	29.99
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Psycho Killer	24.99
Trivial Pursuit	45.99
Wrath of Demon	24.99
Basketball	24.99
Dinosaurs For Hire	14.99
All Dogs Go To Heaven	29.99
Raffles	29.99
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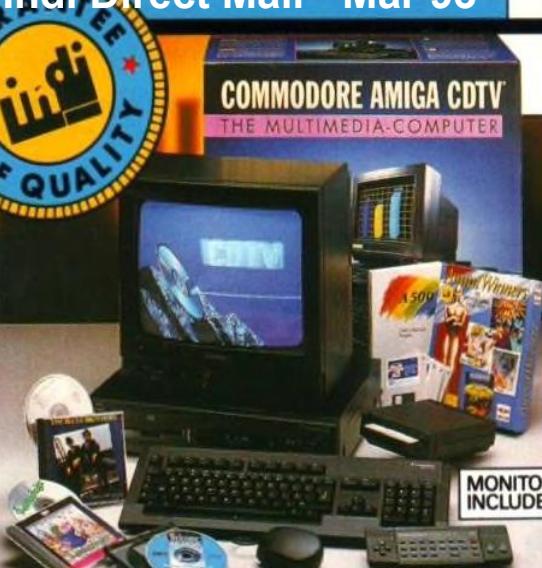
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ENTERTAINMENT	
BattleChess	£39.99
Battle Storm	£29.99

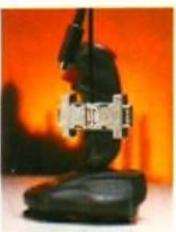
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AMIGA CDTV ACCESSORIES



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on your CDTV. No loading of driver programs or software. No switches for mouse or joystick. Special settings (with mouse) allow you to blast away with three rapid fire modes & dual fire buttons. Comes complete with Python Micro Switched Joystick.

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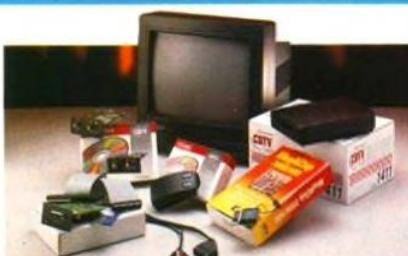
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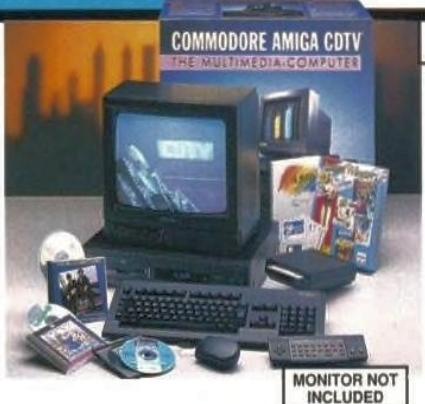
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AMIGA CDTV ACCESSORIES



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AMIGA CDTV

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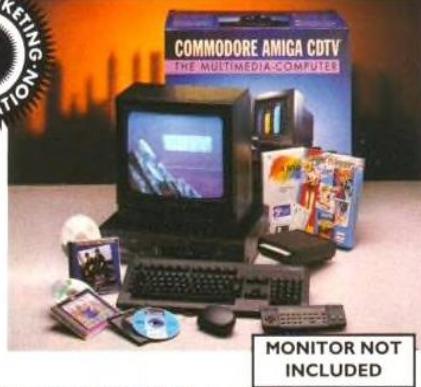
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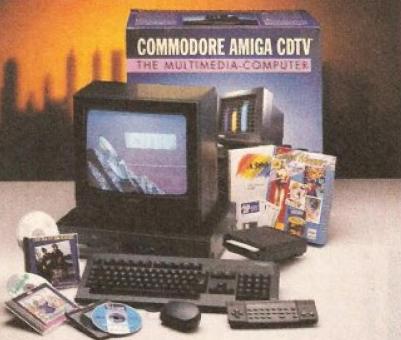
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